- S5205-2.16-LL -

OCCUPATIONAL EMPLOYMENT STATISTICS

NEW HAMPSHIRE

1986

HOSPITALS

PEOPLE AT WORK

STAFFING PATTERNS

DEPARTMENT OF EMPLOYMENT SECURITY

OCCUPATIONAL STAFFING PATTERNS

OF

HOSPITALS IN NEW HAMPSHIRE

1986

An Occupational Employment Statistics Survey

Conducted By The

Economic Analysis and Reports Section

NEW HAMPSHIRE DEPARTMENT OF EMPLOYMENT SECURITY

In Cooperation With The
U. S. BUREAU OF LABOR STATISTICS

Published

Wesley S. Noyes, Jr., Supervisor

William Halm, Labor Market Analyst II

TABLE OF CONTENTS

	Page
Preface	i
Introduction	1
Summary	2
Occupational Profiles of Hospitals In New Hampshire	3
Technical Data and Appendix	12

PREFACE

Our sincere appreciation is extended to those employers who participated in this survey. Without their support, this publication would not have been possible. Special thanks is given to Edmond Duchesne, Financial Analyst, Bureau of Institutional Health Services for providing us with data on completed and proposed hospital projects for the years 1985 and 1986.

We also would like to express our thanks to the United States Department of Labor, both at the regional level in Boston, MA and the national level in Washington, D.C. for their help in the Federal-State Cooperative effort.

This report was prepared by the New Hampshire Occupational Employment Statistics (OES) Program staff William Halm, with programming and data processing support provided by Richard Ricard, and word processing by Madaline Moulton.

Your comments and suggestions as well as requests for more information are most welcome. We may be reached at the following address:

Department of Employment Security
Occupational Employment Statistics Unit
32 South Main Street
Concord, N.H. 03301

Phone (603) 228-4120

INTRODUCTION

The United States Department of Labor initiated the OES program in mid 1971 to meet the increasing demand for current occupational data. The program consists of three distinct segments: The survey; the industry-occupational matrix and the industry employment projections. This publication only presents the survey phase of the program.

The OES survey is a periodic mail survey of a sample of establishments selected from the ES-202. The survey is conducted over a three year cycle. Manufacturing and Hospitals are surveyed in the first year; one half the nonmanufacturing industries in the second year; and the remainder of nonmanufacturing industries in the third year. Data are collected from employing establishments primarily by mail with telephone followups and personal visits when an establishment's response is critical to the survey. The OES survey is based on a random sample, stratified by industry and size, and designed to represent the total or "universe" of establishments covered in the survey. These data are then used to estimate total nonfarm wage and salary employment by occupation and industry for the state and selected substate areas.

The industry-occupational matrix is a chart, or array which is divided into columns and rows. The columns represent divisions of industry, such as manufacturing, finance, insurance and real estate (FIRE), Wholesale and Retail Trade and Services. The rows represent large occupational groupings, including professional, paraprofessional and technical workers, clerical workers and sales workers. Each column and row is subdivided to provide a more detailed matrix of industries and occupations. For example, in the banking industry, tellers are listed in the clerical group, and computer programmers are listed in the professional, paraprofessional and technical group. Also the banking industry is part of the finance, insurance and real estate division.

The industry employment projections by occupation are based on knowing the staffing pattern or occupational makeup of the industry (as determined by the OES survey) and the industry employment for the target year. The industry employment is projected to the target year using a statistical technique called "regression analysis." The projected occupational employment is obtained by applying the adjusted staffing pattern ratios.

Between April 1986 and June 1987, the New Hampshire Department of Employment Security conducted an occupational employment survey of private hospitals, state hospitals and local government hospitals by means of a questionnaire. This report was compiled from usable returns from the original mailing plus three follow-ups.

As used in this report, Standard Industrial Classification (SIC) defines industries according to composition and structure and spans the entire field of economic activities. Industrially classified statistics are used not only to show how industries have performed over past years but to indicate emerging and rapidly growing industries.

The goal of the OES program is to direct training programs to meet both current and long-range personnel needs. To that end, it is an invaluable tool enabling employers, educational planners, manpower analysts, economists and other users to intelligently deal with inequities in the supply and demand of workers in specific occupations on the local, state or national level.

SUMMARY

OCCUPATIONAL EMPLOYMENT

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

This group includes establishments primarily engaged in providing diagnostic services, extensive medical treatment including surgical services, and other hospital services, as well as continuous nursing services. These establishments have an organized medical staff, inpatient beds, and equipment and facilities to provide complete health care.

Wage and salary workers employed in Hospitals in New Hampshire during the survey period of the second quarter of 1986 totalled 14,356 workers. This represented an increase of 232 workers (1.6 percent) from the previous survey in 1983. More than half of these workers held jobs in the Professional, Paraprofessional and Technical occupational group. Within this group, the most prominent occupations were registered nurses (52.5 percent) and licensed practical nurses (11 percent). The next largest occupational group, services, accounted for (21 percent) of the hospital jobs. This group was largely made up of nursing aids, orderlies and attendants (20 percent) and maids and housekeeping cleaners (17.2 percent). There were 120 specific occupations and the eight employing the largest number of workers accounted for more than half of all hospital workers in New Hampshire.

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

OCCUPATIONAL TITLE	OES CODE	APRIL 1986 EST. EMPL.	PERCENT OF TOTAL	PERCENT OF FIRMS REPORTING
TOTAL OCCUPATIONS		14,356	100.0	
MANAGERS AND ADMINISTRATORS	10000-19999	766	5.34	
Financial Managers	13002	51	0.36	86.7
Personnel, Training, and Labor Relations Managers	13005	31	0.22	73.3
Purchasing Managers	13008	32	0.22	76.7
Marketing, Advertising, and Public Relations Managers	13011	38	0.26	60.0
Administrative Services Managers	13014	50	0.35	30.0
Engineering, Mathematical and Natural Sciences Managers	13017	17	0.12	46.7
Medical and Health Services Managers	15008	178	1.24	93.3
Food Service and Lodging Managers	15026	35	0.24	76.7
General Managers and Top Executives	19005	128	0.89	96.7
All Other Managers and Administrators	19999	206	1.44	NA
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	20000-39999	7,662	53.37	
Accountants and Auditors	21114	28	0.19	53.3
Budget Analysts	21117	4	0.03	13.3
All Other Financial Specialists	21199	26	0.18	NA
Purchasing Agents	21308	13	0.09	33.3
Personnel, Training, and Labor Relations Specialists	21511	24	0.17	50.0
Compliance Officers and Enforcement Inspectors	21911	6	0.04	16.7
All Other Management Support Workers	21999	20	0.14	NA
Mechanical Engineers	22135	10	0.07	20.0
All Other Engineers	22199	15	0.10	NA
All Other Engineering Technicians and Technologists	22599	6	0.04	NA
Medical Scientists	24311	11	0.08	10.0
Systems Analysts	25102	18	0.13	26.7
Computer Programmers	25105	21	0.15	26.7
Computer Programmer Aides	25108	25	0.17	30.0

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

OCCUPATIONAL TITLE	OES CODE	APRIL 1986 EST. EMPL.	PERCENT OF TOTAL	PERCENT OF FIRMS REPORTING
Psychologists	27108	19	0.13	13.3
Social Workers, Medical and Psychiatric	27302	129	0.90	76.7
Social Workers, Except Medical and Psychiatric	27305	15	0.10	16.7
Social Service Technicians	27308	5	0.03	10.0
Clergy	27502	13	0.09	16.7
Nursing Instructors	31114	43	0.30	36.7
Teachers and Instructors, Vocational and Training	31314	15	0.10	20.0
All Other Teachers and Instructors	31399	32	0.22	NA
Librarians, Professional	31502	16	0.11	40.0
Technical Assistants, Library	31505	6	0.04	16.7
Physicians and Surgeons	32102	242	1.68	46.7
Respiratory Therapists	32302	140	0.98	63.3
Occupational Therapists	32305	102	0.71	63.3
Physical Therapists	32308	166	1.16	76.7
Speech Pathologists and Audiologists	32314	30	0.21	26.7
Recreational Therapists	32317	28	0.20	43.3
All Other Therapists	32399	77	0.54	NA
Registered Nurses	32502	4,026	28.05	100.0
Licensed Practical Nurses	32505	842	5.87	100.0
Emergency Medical Technicians	32508	61	0.43	16.7
Physicians Assistants	32511	11	0.08	10.0
Pharmacists	32517	116	0.81	86.7
Dieticians and Nutritionists	32521	49	0.34	76.7
Dietetic Technicians	32523	48	0.33	66.7
Medical and Clinical Laboratory Technologists	32902	277	1.93	70.0
Medical and Clinical Laboratory Technicians	32905	144	1.00	70.0
Medical Records Technicians and Technologists	32911	64	0.45	66.7
Nuclear Medicine Technologists	32914	38	0.26	43.3
Radiologic Technologists	32917	199	1.39	63.3
Radiologic Technicians	32921	84	0.59	40.0
Electroencephalograph Technicians and Technologists	32923	43	0.30	46.7
Electrocardiograph Technicians and Technologists	32926	49	0.34	46.7

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

OCCUPATIONAL TITLE	OES CODE	APRIL 1986 EST. EMPL.	PERCENT OF TOTAL	PERCENT OF FIRMS REPORTING
Surgical Technicians	32928	88	0.61	56.7
All Other Health Professionals and Technicians	32999	182	1.26	NA
Public Relations Specialists and Publicity Writers	34008	14	0.10	33.3
All Other Professional, Paraprofessional and Technical Workers	39999	22	0.15	NA
SALES OCCUPATIONS	40000-49999	36	0.25	
Cashiers	49023	32	0.22	53.3
All Other Sales and Related Workers	49999	4	0.03	NA
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	50000-59999	2,333	16.25	
First Line Supervisors and Manager/ Supervisors-Clerical and Administrative Support Workers	51002	162	1.13	83.3
Adjustment Clerks	53123	39	0.27	30.0
Medical Secretaries	55105	149	1.04	66.7
All Other Secretaries	55199	321	2.24	NA
Stenographers	55302	20	0.14	13.3
Receptionists and Information Clerks	55305	71	0.49	53.3
Typists	55308	151	1.05	70.0
Typists, Word Processor	55311	11	0.08	10.0
Personnel Clerks	55314	20	0.14	40.0
File Clerks	55321	51	0.36	43.3
Order Clerks	55323	4	0.03	10.0
Procurement Clerks	55326	30	0.21	50.0
Statistical Clerks	55328	90	0.63	40.0
Interviewing Clerks	55332	196	1.37	60.0
Bookkeeping, Accounting and Auditing Clerks	55338	62	0.43	76.7
Payroll and Timekeeping Clerks	55341	34	0.24	76.7
Billing, Cost and Rate Clerks	55344	93	0.65	60.0
General Office Clerks	55347	325	2.26	83.3
Billing, Posting, and Calculating Machine Operators	56002	10	0.07	10.0
Computer Operators	56011	29	0.20	43.3
Data Entry Keyers	56017	42	0.29	60.0
Switchboard Operators	57102	195	1.36	86.7

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

OCCUPATIONAL TITLE	OES CODE	APRIL 1986 EST. EMPL.	PERCENT OF TOTAL	PERCENT OF FIRMS REPORTING
Stock Clerks-Stockroom Warehouse Or Storage Yard	58023	78	0.54	60.0
Traffic, Shipping and Receiving Clerks	58028	14	0.10	26.7
All Other Material Recording Scheduling and Distribution Workers	58099	21	0.15	NA
All Other Clerical and Administrative Support Workers	59999	115	0.80	NA
SERVICE OCCUPATIONS	60000-69999	3,069	21.38	
Housekeepers	61008	145	1.01	96.7
All Other Service Supervisors and Managers	61099	56	0.39	NA
Guards and Watch Guards	63047	106	0.74	53.3
Food Servers, Outside	65011	131	0.91	30.0
Dining Room and Cafeteria Attendants	65017	87	0.61	26.7
Counter Attendants, Food	65017	25	0.17	23.3
Bakers, Bread and Pastry	65021	8	0.06	23.3
Cooks, Institution or Cafeteria	65028	130	0.91	96.7
Food Preparation Workers	65038	333	2.32	80.0
All Other Food Service Workers	65099	135	0.94	NA
Medical Assistants	66005	19	0.13	20.0
Nursing Aides, Orderlies, and Attendants	66008	615	4.29	83.3
Psychiatric Aides	66014	278	1.94	13.3
Physical Therapy Assistants	66017	45	0.31	50.0
Occupational Therapy Assistants and Aides	66021	17	0.12	20.0
Pharmacy Assistants	66026	93	0.65	70.0
All Other Health Service Workers	66099	164	1.14	NA
Maids and Housekeeping Cleaners	67002	529	3.69	80.0
Janitors and Cleaners	67005	111	0.77	56.7
All Other Cleaning and Building Service Workers	67099	22	0.15	NA
All Other Service Workers	69999	20	0.14	NA

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

OCCUPATIONAL TITLE	OES CODE	APRIL 1986 EST. EMPL.	PERCENT OF TOTAL	PERCENT OF FIRMS REPORTING
AGRICULTURAL, FORESTRY, FISHING AND RELATED WORKERS	70000-79999	19	0.13	
Gardeners And Groundskeepers	79014	18	0.12	40.0
All Other Agricultural, Forestry, Fishing and Related Workers	79999	1	0.01	NA
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	80000-98999	471	3.28	
First Line Supervisors and Manager/ Supervisors-Mechanics and Repairers	81002	13	0.09	33.3
All Other First Line Supervisors and Manager/Supervisors	81099	9	0.06	NA
Maintenance Repairers, General Utility	85132	90	0.63	70.0
Heating, Air Conditioning, and Refrigeration Mechanics	85902	27	0.19	33.3
Electromedical and Biomedical Equipment Repairers	85908	14	0.09	30.0
Menders	85956	11	0.07	26.7
All Other Mechanics, Installers, and Repairers	85999	36	0.25	NA
Carpenters	87102	22	0.15	33.3
Electricians	87202	18	0.12	33.3
Painters and Paperhangers	87402	22	0.15	43.3
Plumbers and Pipefitters	87502	16	0.11	26.7
All Other Construction and Extractive Workers	87999	8	0.05	NA
Laundry and Drycleaning Machine Operators	92726	71	0.49	33.3
Boiler Operators, Low Pressure	92926	34	0.23	33.3

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

OCCUPATIONAL TITLE	OES CODE	APRIL 1986 EST. EMPL.	PERCENT OF TOTAL	PERCENT OF FIRMS REPORTING
All Other Machine Setters and Set-Up Operators	92997	6	0.04	NA
All Other Plant and System Operators	95099	3	0.02	NA
Truck Drivers, Light-Include Delivery and Route Workers	97105	18	0.12	20.0
All Other Motor Vehicle Operators	97199	7	0.04	NA
All Other Transportation and Material Moving Equipment Operators	97989	2	0.01	NA
All Other Helpers, Laborers, and Material Movers, Hand	98999	54	0.37	NA

HOSPITALS IN NEW HAMPSHIRE
(SIC 806)

THE TWENTY-TWO MOST FREQUENTLY REPORTED OCCUPATIONS
LISTED BY ORDER OF RANK

RANK	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	32502	Registered Nurses	100.0
	32505	Licensed Practical Nurses	100.0
3	65028	Cooks, Institution Or Cafeteria	96.7
	19005	General Managers and Top Executives	96.7
	61008	Housekeepers	96.7
6	15008	Medical and Health Service Managers	93.3
7	13002	Financial Managers	86.7
	32517	Pharmacists	86.7
	57102	Switchboard Operators	86.7
10	51002	First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	83.3
	55347	General Office Clerks	83.3
	66008	Nursing Aides, Orderlies and Attendants	83.3
13	67002	Maids and Housekeeping Cleaners	80.0
	65038	Food Preparation Workers	80.0
15	13008	Purchasing Managers	76.7
	15026	Food Service and Lodging Managers	76.7
	27302	Social Workers, Medical and Psychiatric	76.7
	32308	Physical Therapists	76.7
	32521	Dieticians and Nutritionists	76.7
	55338	Bookkeepers, Accountants and Auditing Clerks	76.7
	55341	Payroll and Timekeeping Clerks	76.7
22	13005	Personnel, Training, and Labor Relations Managers	73.3

HOSPITALS IN NEW HAMPSHIRE
(SIC 806)

THE FIFTEEN OCCUPATIONS EMPLOYING THE
LARGEST NUMBER OF WORKERS
LISTED BY ORDER OF RANK

RANK	OES CODE	OCCUPATIONAL TITLE	APRIL 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
1	32502	Registered Nurses	4,026	28.0
2	32505	Licensed Practical Nurses	842	5.9
3	66008	Nursing Aides, Orderline and Attendants	615	4.3
4	67002	Maids and Housekeeping Cleaners	529	3.7
5	65038	Food Preparation Workers	333	2.3
6	55347	General Office Clerks	325	2.3
7	66014	Psychiatric Aides	278	1.9
8	32902	Medical and Clinical Laboratory Technologists	277	1.9
9	32102	Physicians and Surgeons	242	1.7
10	32917	Radiologic Technologists	199	1.4
11	55332	Interviewing Clerks	196	1.4
12	57102	Switchboard Operators	195	1.4
13	15008	Medical and Health Service Managers	178	1.2
14	32308	Physical Therapists	166	1.1
15	51002	First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	162	1.1

STAFFING PATTERNS

HOSPITALS IN NEW HAMPSHIRE

(SIC 806)

Estimates covering the following occupations were not shown separately because of a relative error greater than 50 percent or disclosure of confidential employer information. They were however included in the appropriate "All" or "All Other" category.

Ambulance Drivers and Attendants, Except Emergency Medical Technicians
Civil Engineers, Including Traffic
Cooks, Short Order
Dental Assistants
Dental Hygienists
Dispatchers
Electrical and Electronic Technicians and Technologists
First Line Supervisors and Manager/Supervisors-Agricultural, Forestry, Fishing, and Related Occupations
Home Health Aides
Industrial Engineers, Except Safety
Machine Maintenance Mechanic
Parking Lot Attendants
Stationary Engineers
Waiters and Waitresses

APPENDIX

I. HOSPITAL MODERNIZATION PROJECTS* 1984 - 1987

MARY HITCHCOCK MEMORIAL, HANOVER, NH

PROJECTS:	Purchase a Digital Subtraction Angiography System, and a Mobile CT Unit.
PROJECT AMOUNTS:	$1,249,650 and $1,000,000
DATES OF APPROVAL:	August 1984 and November 1984
PROJECT STATUS:	Completed
PROJECT:	Replace its Radiation Therapy Equipment
PROJECT AMOUNT:	$5,690,520
DATE OF APPROVAL:	July 198[illegible]
PROJECT STATUS:	Completed
PROJECT:	Relocate & Rebuild the Entire Hospital from Hanover to Littleton, NH
PROJECT AMOUNT:	$128,594,914
DATE OF APPROVAL:	May 1987
PROJECT STATUS:	To be Completed

WENTWORTH-DOUGLASS, DOVER, NH

PROJECT:	Addition and Renovation
PROJECT AMOUNT:	$22,691,000
DATE OF APPROVAL:	June 1984
PROJECT STATUS:	Completed

HOSPITAL CORPORATION OF AMERICA, PORTSMOUTH, NH

PROJECTS:	Purchase Portsmouth Hospital, Construct a Psychiatric Pavilion on the New Portsmouth Hospital Campus.
PROJECT AMOUNTS	$35,511,051 and $8,023,754
DATE OF APPROVAL:	June 1984
PROJECT STATUS:	Completed

COTTAGE HOSPITAL, WOODSVILLE, NH

PROJECTS:	Addition and Renovation
PROJECT AMOUNT:	$1,075,000
DATE OF APPROVAL:	February 1985
PROJECT STATUS:	Completed

APPENDIX

I. HOSPITAL MODERNIZATION PROJECTS* 1984 - 1987

ELLIOT HOSPITAL, MANCHESTER, NH

PROJECTS:	Develop an Ambulatory Surgery Center, Replace its Existing Fixed CT Scanner.
PROJECT AMOUNTS:	$654,803 and $536,700
DATES OF APPROVAL:	June 1984 and April 1985
PROJECT STATUS:	Completed

PARKLAND MEDICAL CENTER (HCA), DERRY, NH

PROJECT:	Establish a Fixed CT Service
PROJECT AMOUNT:	$532,350
DATE OF APPROVAL:	July 1985
PROJECT STATUS:	Completed
PROJECT:	Renovate and Expand the Existing Facility
PROJECT AMOUNT:	$6,246,614
DATE OF APPROVAL:	Under Review
PROJECT STATUS:	--

FRISBIE MEMORIAL, ROCHESTER, NH

PROJECT:	Develop and Operate 2 Occupational Therapy Centers (in Somersworth and Newington)
PROJECT AMOUNT:	$378,187
DATE OF APPROVAL:	January 1985
PROJECT STATUS:	Completed

EXETER HOSPITAL, EXETER, NH

PROJECT:	Establish a Fixed CT Service
PROJECT AMOUNT:	$615,000
DATE OF APPROVAL:	April 1985
PROJECT STATUS:	Completed

APPENDIX

I. HOSPITAL MODERNIZATION PROJECTS* 1984 - 1987

WEEKS MEMORIAL HOSPITAL, LANCASTER, NH

PROJECTS:	Renovate and Expand the Existing Facility
PROJECT AMOUNTS:	$1,608,000
DATE OF APPROVAL:	Under Review
PROJECT STATUS:	--

LITTLETON HOSPITAL, LITTLETON, NH

PROJECTS:	Renovate and Expand the Existing Facility
PROJECT AMOUNTS:	$4,100,000
DATE OF APPROVAL:	Under Review
PROJECT STATUS:	--

ST. JOSEPH HOSPITAL, NASHUA, NH

PROJECTS:	Establish a New Rehabilitation Service
PROJECT AMOUNT:	$150,000
DATE OF APPROVAL	April 1985
PROJECT STATUS:	Completed
PROJECTS:	Construct a Medical Office Building and a Four-Level Parking Garage
PROJECT AMOUNT:	$5,430,000
DATE OF APPROVAL:	Under Review
PROJECT STATUS:	--

CHESHIRE HOSPITAL, KEENE, NH

PROJECTS:	Establish a New Rehabilitation Service
PROJECT AMOUNT:	$140,567
DATE OF APPROVAL:	April 1985
PROJECT STATUS:	Completed
PROJECTS:	Renovate the Existing Facility
PROJECT AMOUNT:	$5,365,674
DATE OF APPROVAL:	Under Review
PROJECT STATUS:	--

APPENDIX

I. HOSPITAL MODERNIZATION PROJECTS* 1984 - 1987

LAKES REGION GENERAL HOSPITAL, LACONIA, NH

PROJECT:	Renovate and Add to the Existing Facility
PROJECT AMOUNT:	$23,158,550
DATE OF APPROVAL:	May 1987
PROJECT STATUS:	Under Construction

NASHUA MEMORIAL HOSPITAL, NASHUA, NH

PROJECT:	Construct a Multi-Level Parking Garage
PROJECT AMOUNT:	$4,600,000
DATE OF APPROVAL:	Under Review
PROJECT STATUS:	--

PORTSMOUTH HOSPITAL (HCA), PORTSMOUTH, NH

PROJECT:	Establish a Cardiac Cath. Lab.
PROJECT AMOUNT:	$520,024
DATE OF APPROVAL:	January 1986
PROJECT STATUS:	Completed

N.H. LITHOTRIPTER (SUBSIDIARY OF ELLIOT HOSPITAL)

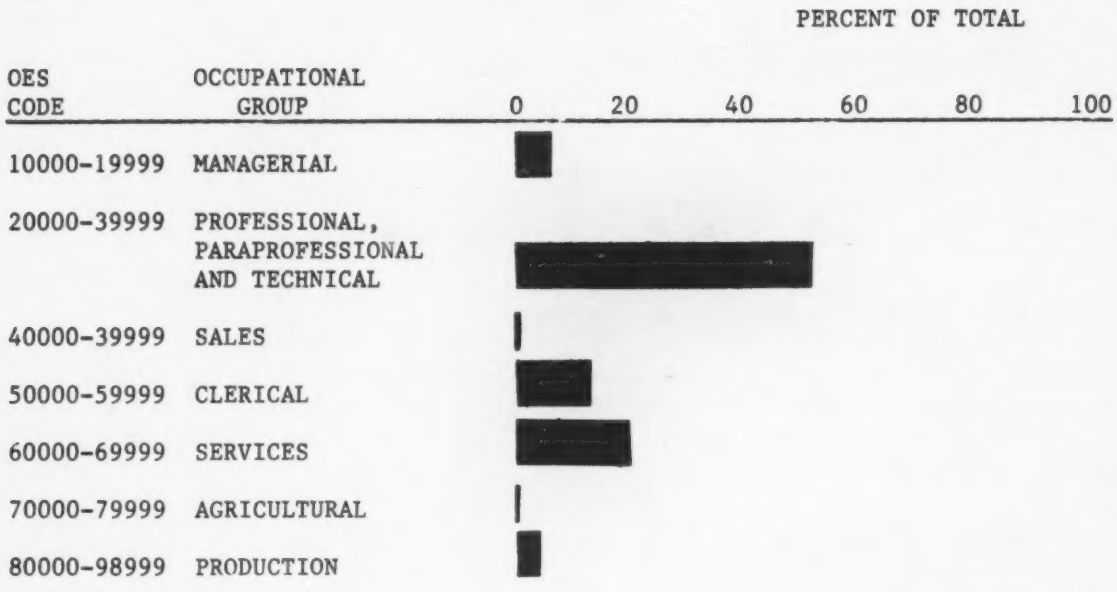
PROJECT:	Own and Operate a Mobile Lithotripsy Unit.
PROJECT AMOUNT:	$1,106,800
DATE OF APPROVAL:	January 1986
PROJECT STATUS:	Completed

* OFFICE OF HEALTH SERVICES, PLANNING AND REVIEW

PERCENT DISTRIBUTION OF

MAJOR OCCUPATIONAL GROUPS

HOSPITALS IN NEW HAMPSHIRE
(SIC 806)



ANNUAL AVERAGE EMPLOYMENT (in thousands)*

1972-1986
HOSPITALS IN NEW HAMPSHIRE**
(SIC 806)

YEAR	ANNUAL AVERAGE	PERCENT-CHANGE
1972	9.6	-
1973	10.2	6.3
1974	10.7	4.9
1975	11.3	5.6
1976	11.6	2.7
1977	11.9	2.6
1978	12.3	3.4
1979	12.4	0.8
1980	13.0	4.1
1981	13.8	6.5
1982	14.0	1.3
1983	14.4	2.7
1984	14.9	3.6
1985	15.6	4.2
1986	16.2	4.0

* ES-202 EMPLOYMENT
* * INCLUDES STATE AND LOCAL GOVERNMENT HOSPITALS

APPENDIX

The OES coding structure provides for the allocation of occupations reported into seven major categories. Specifically these occupational categories are as follows:

10000-19999 I. Managerial and Administrative Occupations

Includes top and middle level managers, administrators, and executives. Primary duties are policy making, planning, staffing, directing or controlling the activities of industrial, commerical, governmental or other establishments. Typical examples are: Corporate Officers; Plant Managers; Branch Managers; District Managers; Production Superintendents; General Superintendents; and Managers of such departments as budget, purchasing, sales and distribution, advertising, public relations, personnel and training, etc.

20000-39999 II. Professional, Paraprofessional and Technical Occupations

Includes persons concerned with the theoretical or practical aspects of such fields as science, art, education, law and business relations where substantial post-secondary educational preparation or equivalent on-the-job training or experience is required. Typical examples are: Architects; Engineers; Metallurgists; Physicists; Mathematicians; Statisticians; Biologists; Economists; Accountants and Auditors; Purchasing Agents; Public Relations Practitioners; Personnel and Training Specialists (other than departmental managers); Lawyers; Physicians and Surgeons; Registered Nurses; Editors and Writers; Teachers; Air Traffic Controllers; Computer Programmers; Drafters; and Chemical Technicians (except Health).

40000-49999 III. Sales and Related Occupations

Includes persons selling goods or services and others directly related to sales. Typical examples are: Sales Agents and Placers; Insurance; Sales Engineers; Cashiers; and Salespersons, Retail.

50000-59999 IV. Clerical and Administrative Support Occupations

Includes persons performing office and plant clerical tasks such as typing, filing, computer operating, records keeping (personnel, stock, production, billing, etc); and mail preparation and distributing.

60000-69999 V. Service Occupations

Includes workers in occupations relating to protective service, food service, health assisting service, cleaning and building service and personal service.

70000-79999 VI. Agricultural, Forestry, Fishing and Related Occupations

Includes workers concerned with agricultural production, forestry, and fishing. Also included in this division are agriculture related workers such as animal caretakers and groundskeepers.

80000-98999 VII. Production, Construction, Operating, Maintenance and Material Handling Occupations

Includes all skilled, semiskilled and unskilled workers performing machine and manual tasks involving production, construction, operating, maintenance, repair and material handling operations.

METHODOLOGY

A. Sample and Survey Response

New Hampshire Hospital employment estimates were based on data furnished by responses to a survey conducted by the New Hampshire Department of Employment Security. The survey covered the payroll period including April 12, 1986. The survey universe was based on the 1985 ES-202 employment listing together with the employment and wage report of the New Hampshire State Hospital.

Usable responses were received from 30 establishments or (86 percent) of the 35 hospitals included in the survey. The survey was conducted by mail and consisted of an initial mailing and one follow up. Phone calls were made when needed to insure the validity of the estimates.

B. Estimating Procedure

All usable employer questionnaires were separated into seven employment size groups by industry. For example, establishments with employment of 4-9 would be in one size class and those with employment of 10-19 would be in another size class, etc. One size class in one industry represents an estimating cell. All establishments in a given estimating cell were assigned a sample weight which is the inverse of the sampling ratio. Since a universe count of New Hampshire hospitals were included in the sample, the sampling ratio in each size class was one-to-one. Therefore, the sample weight assigned to each establishment in each estimating cell was one. However, if the universe were not taken in the survey sample, the sample weight assigned to some of the smaller establishments would have been a weight other than one. For example, if the reported employment in a specific occupation for an establishment is 100, and only one out of two establishments in this estimating cell is included in the sample, the weight assigned to this establishment would be the inverse of $\frac{1}{2}$ which is two, and for estimating purposes, the 100 employment would have a representation of 200 (2 X 100). The employment for any specific occupation in each establishment is blown-up (inflated) by its sample weight and summed for all sample establishments in the cell. A ratio is then obtained by dividing this sum by the weighted total employment. This ratio is multiplied by the benchmark employment for that estimating cell corresponding to the survey month of April 1986. This yields the occupational make-up of the estimating cell for that month. Finally, the employment in like occupations are summed across all employment size classes within the three-digit SIC (Standard Industrial Classification) level to arrive at a total industry employment for each occupation.

S 5205-2.17-U

OCCUPATIONAL EMPLOYMENT STATISTICS

NEW HAMPSHIRE

1/86

MANUFACTURING INDUSTRIES

PEOPLE AT WORK

STAFFING PATTERNS

DEPARTMENT OF EMPLOYMENT SECURITY

NEW HAMPSHIRE STAFFING PATTERNS IN MANUFACTURING INDUSTRIES 1986

An Occupational Employment Statistics Survey

Conducted By The

Economic Analysis and Reports Section

NEW HAMPSHIRE DEPARTMENT OF EMPLOYMENT SECURITY

In Cooperation With The

U.S. BUREAU OF LABOR STATISTICS

Published April 1988

Wesley S. Noyes, Jr., Supervisor

William Halm, Labor Market Analyst II

TABLE OF CONTENTS

SIC CODE	INDUSTRY	PAGE
Preface		
Introduction		
20-39	ALL MANUFACTURING	1-26
24-25, 32-39	DURABLE GOODS MANUFACTURING	27-40
24	Lumber and Wood Products, Except Furniture	41-47
25	Furniture and Fixtures	48-53
32	Stone, Clay, Glass and Concrete Products	54-59
336	Nonferrous Foundries (Castings)	60-64
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	65-71
35	Machinery, Except Electrical	72-79
36	Electrical and Electronic Machinery, Equipment and Supplies	80-88
38	Instruments and Related Products	89-95
20-23, 26-31	NONDURABLE GOODS MANUFACTURING	96-108
20	Food and Kindred Products	109-114
22	Textile Mill Products	115-120
23	Apparel and Other Finished Products Made From Fabrics and Similar Materials	121-125
26	Paper and Allied Products	126-132
27	Printing, Publishing and Allied Industries	133-139
28	Chemicals and Allied Products	140-144
30	Rubber and Miscellaneous Plastics Products	145-158
Technical Data and Appendix		159-163

PREFACE

Our sincere appreciation is extended to those employers who participated in this survey. Without their support, this publication would not have been possible.

We also would like to express our thanks to the United States Department of Labor, both at the regional level in Boston, MA and the national level in Washington, D.C. for their help in the Federal-State Cooperative effort.

This report was prepared by the New Hampshire Occupational Employment Statistics (OES) Program staff William Halm, with programming and data processing support provided by Richard Ricard, and word processing by Madaline Moulton.

Your comments and suggestions as well as requests for more information are most welcome. We may be reached at the following address:

Department of Employment Security
Occupational Employment Statistics Unit
32 South Main Street
Concord, N.H. 03301

Phone (603) 228-4120

INTRODUCTION

The United States Department of Labor initiated the OES program in mid 1971 to meet the increasing demand for current occupational data. The program consists of three distinct segments: The survey; the industry-occupational matrix and the industry employment projections. This publication only presents the survey phase of the program.

The OES survey is a periodic mail survey of a sample of establishments selected from the ES-202. The survey is conducted over a three year cycle. Manufacturing and Hospitals are surveyed in the first year; one half the nonmanufacturing industries in the second year; and the remainder of nonmanufacturing industries in the third year. Data are collected from employing establishments primarily by mail with telephone followups and personal visits when an establishment's response is critical to the survey. The OES survey is based on a random sample, stratified by industry and size, and designed to represent the total or "universe" of establishments covered in the survey. These data are then used to estimate total nonfarm wage and salary employment by occupation and industry for the state and selected substate areas.

The industry-occupational matrix is a chart, or array which is divided into columns and rows. The columns represent divisions of industry, such as manufacturing, finance, insurance and real estate (FIRE), Wholesale and Retail Trade and Services. The rows represent large occupational groupings, including professional, paraprofessional and technical workers, clerical workers and sales workers. Each column and row is subdivided to provide a more detailed matrix of industries and occupations. For example, in the banking industry, tellers are listed in the clerical group, and computer programmers are listed in the professional, paraprofessional and technical group. Also the banking industry is part of the finance, insurance and real estate division.

The industry employment projections by occupation are based on knowing the staffing pattern or occupational makeup of the industry (as determined by the OES survey) and the industry employment for the target year. The industry employment is projected to the target year using a statistical technique called "regression analysis." The projected occupational employment is obtained by applying the adjusted staffing pattern ratios.

Between April 1986 and June 1987, the New Hampshire Department of Employment Security conducted an occupational employment survey of Manufacturing Industries by means of a questionnaire. This report was compiled from usable returns from the original mailing plus three follow-ups.

As used in this report, Standard Industrial Classification (SIC) defines industries according to composition and structure and spans the entire field of economic activities. Industrially classified statistics are used not only to show how industries have performed over past years but to indicate emerging and rapidly growing industries.

The goal of the OES program is to direct training programs to meet both current and long-range personnel needs. To that end, it is an invaluable tool enabling employers, educational planners, manpower analysts, economists and other users to intelligently deal with inequities in the supply and demand of workers in specific occupations on the local, state or national level.

SUMMARY

OCCUPATIONAL EMPLOYMENT
MANUFACTURING IN NEW HAMPSHIRE

(SIC 20-39)

The manufacturing division includes establishments engaged in the mechanical or chemical transformation of materials or substances into new products. These establishments are usually described as plants, factories, or mills and characteristically use power driven machines and materials handling equipment. Establishments engaged in assembling component parts of manufacturing products are also considered manufacturing if the new product is neither a structure nor other fixed improvement. Also included is the blending of materials such as lubricating oils, plastics, resins, or liquors.

Wage and salary workers employed in all manufacturing industries in New Hampshire during the survey period of the second quarter of 1986 totalled 118,559. This represented an increase of 5,860 workers or 5.2 percent from the previous survey conducted in 1983. This increase in manufacturing employment followed a period of continuous decline from 1980-1983 and it occurred as the national economy recovered from a recession which began in late 1980. Durable goods gained 10,073 workers while nondurable goods experienced a loss of 4,213 workers. Significant gains in employment were reported in Transportation Equipment (SIC 37), and Stone, Clay, Glass and Concrete Products (SIC 32) which showed increases of 74.3 percent and 42.9 percent respectively. Leather and Leather Products (SIC 31) experienced the greatest decline (46.8 percent) during this period.

The distribution of manufacturing workers among the seven major occupational groups shows that Production accounts for (60.4 percent) compared to (63.6 percent) in 1983. The next largest group, Professional, accounted for (14.5 percent) compared to (13.1 percent) in 1983. The Clerical group at (12.3 percent) remained unchanged from 1983 while the Managerial group increased from (6.6 to 8.3 percent).

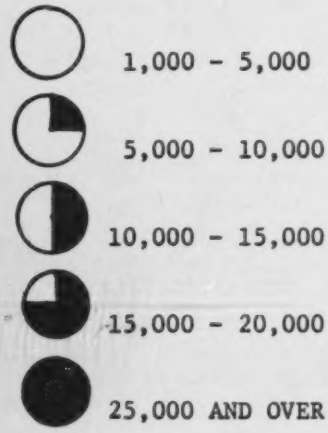
Data for Primary Metal Industries (SIC 33), Petroleum and Coal Products (SIC 29), Leather and Leather Products (SIC 31) and Miscellaneous Manufacturing Industries (SIC 39) were not published since they did not meet the criteria for publication (see appendix).

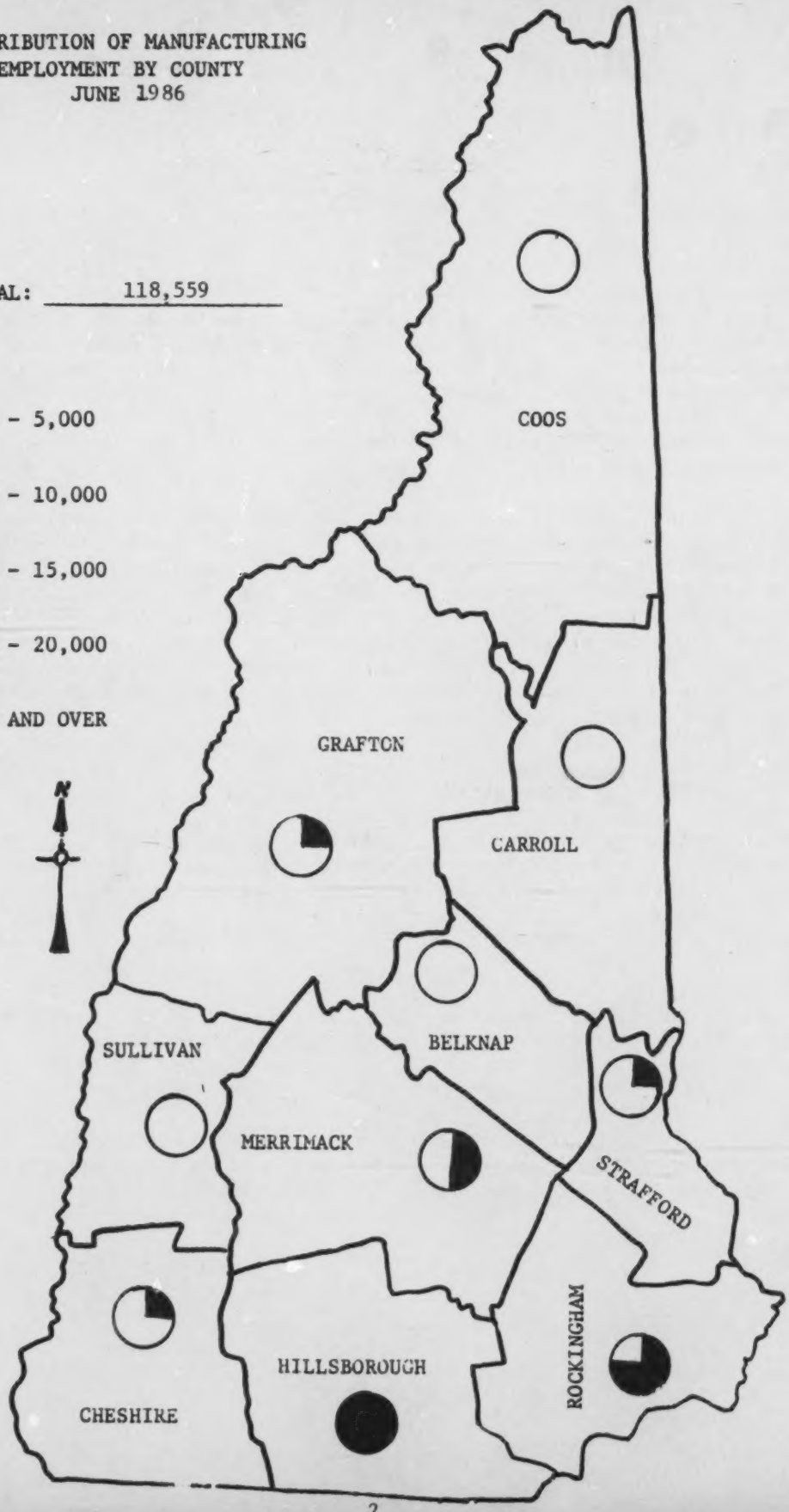
Our sample consisted of 1,165 units representing an employment of 113,921. Usable responses were received from 862 units or (74 percent) of the units sampled. The reported employment was (79 percent) of the employment in the sample.

New Hampshire

DISTRIBUTION OF MANUFACTURING
EMPLOYMENT BY COUNTY
JUNE 1986

INDUSTRY TOTAL: 118,559

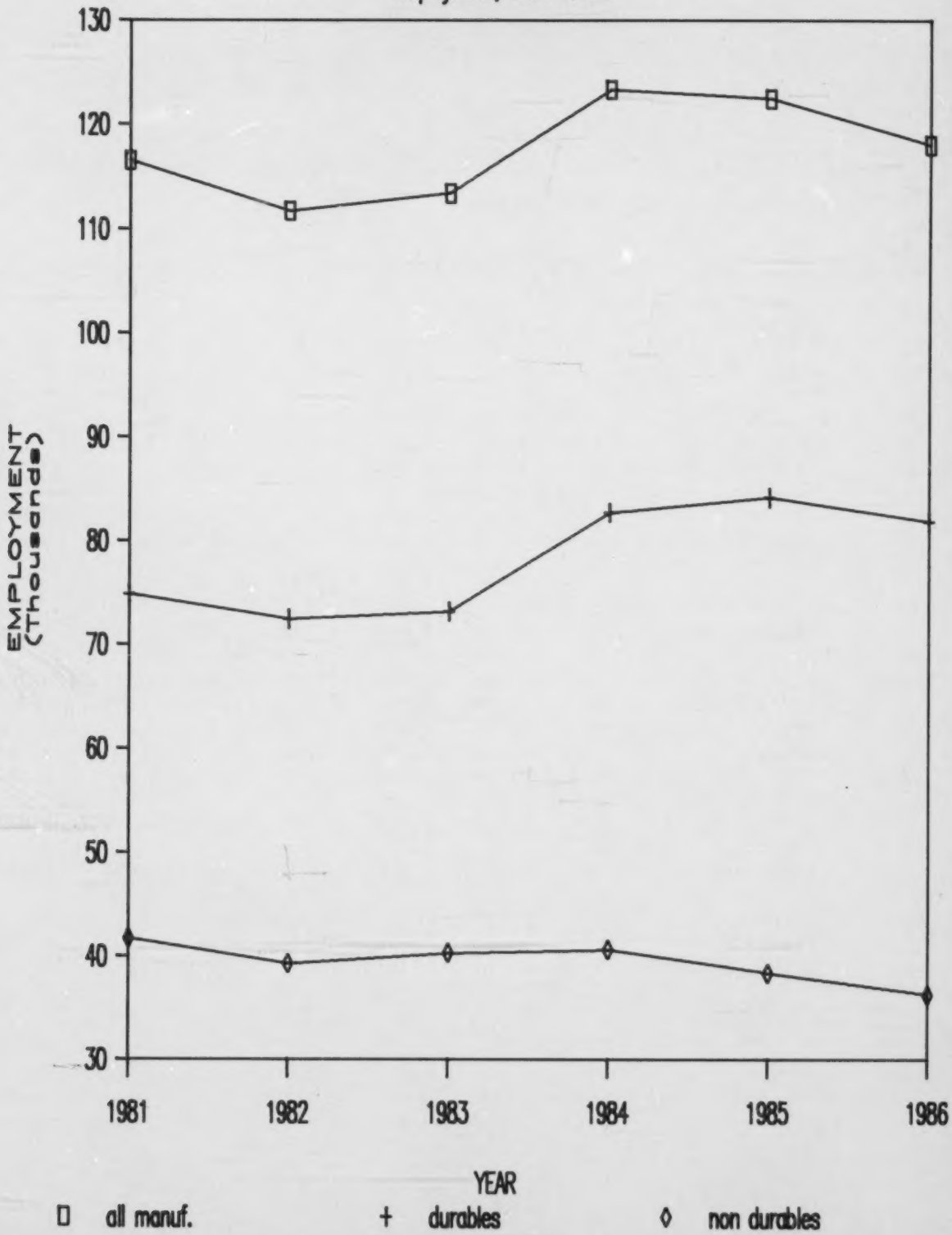




NEW HAMPSHIRE

MANUFACTURING

Employment, 1981–1986



ANNUAL AVERAGE EMPLOYMENT IN NEW HAMPSHIRE

MANUFACTURING INDUSTRIES

1981-1986

SIC	INDUSTRY	AVERAGE EMPLOYMENT 1981	1982	1983	1984	1985	1986
20-39	All Manufacturing	116,493	111,659	113,398	123,315	122,462	118,108
24-25, 32-39	Durable Goods	74,833	72,398	73,118	82,675	84,152	81,867
24	Lumber & Wood Prods. Except Furniture	4,816	4,569	4,837	5,325	5,800	5,924
25	Furniture & Fixtures	1,609	1,350	1,387	1,425	1,564	1,520
32	Stone, Clay, Glass & Concrete Prods.	2,984	2,582	2,508	2,859	3,018	3,224
33	Primary Metals	3,979	3,714	3,890	4,429	4,429	4,143
34	Fabricated Metal Prods.	7,626	7,176	6,985	7,319	7,220	6,842
35	Machinery, Except Elec.	24,396	23,265	21,704	24,154	25,620	25,368
36	Electrical & Electronic Machinery, Equipment & Supplies	19,309	19,692	22,013	26,781	25,639	23,580
37	Transportation Equipment	784	727	835	928	1,223	1,440
38	Instruments & Related Products	7,346	7,477	7,127	7,396	7,429	7,794
39	Miscellaneous Manufacturing Industries,	1,984	1,846	1,832	2,059	2,210	2,034
20-23, 26-31	Nondurable Goods	41,660	39,261	40,280	40,640	38,310	36,241
20	Food & Kindred Products	2,796	2,567	2,773	2,984	3,021	2,928
22	Textile Mill Products	4,270	3,749	3,886	4,145	3,646	3,496
23	Apparel	2,848	2,708	2,780	2,665	2,465	2,289
26	Paper & Allied Products	5,876	5,468	5,348	5,604	5,564	5,542
27	Printing, Publishing & Allied Industries	6,426	6,636	6,809	6,829	7,290	7,331
28 & 29	Chemicals, Petroleum Refining & Related Industries	941	916	911	1,005	1,062	1,164
30	Rubber & Misc. Plastic Products	9,046	8,254	8,914	10,044	9,801	8,899
31	Leather & Leather Prods.	9,457	8,963	8,859	7,364	5,461	4,591

MANUFACTURING IN NEW HAMPSHIRE

SIC (20-39)

EMPLOYMENT CHANGES BETWEEN OES SURVEY PERIODS
(SECOND QUARTER 1983 - SECOND QUARTER 1986)

SIC CODE	INDUSTRY DESCRIPTION	2nd. Qtr. 1983 ESTIMATED EMPLOYMENT	2nd. Qtr. 1986 ESTIMATED EMPLOYMENT	NUMERICAL CHANGE	PERCENT CHANGE
20-39	ALL MANUFACTURING	112,699*	118,559*	5,860	5.2
24,25,32-39	DURABLE GOODS MFG.	72,221*	82,294	10,073	13.9
24	LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE	4,708	5,787	1,079	22.9
242	Sawmills and Planing Mills	1,739	1,556	-183	-10.5
243	Millwork, Veneer, Plywood, and Structural Wood Members	915	1,492	577	63.1
25	FURNITURE AND FIXTURES	1,365	1,474	109	8.0
251	Household Furniture	1,029	988	-41	-4.0
32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS	2,394	3,421	1,027	42.9
329	Abrasive, Asbestos, and Miscellaneous Nonmetalic Mineral Products	1,035	1,559	524	50.6
33	PRIMARY METAL INDUSTRIES	3,661	4,268	607	16.6
335	Rolling, Drawing, and Extruding of Nonferrous Metals	1,396	1,965	569	40.8
336	Nonferrous Foundries (Castings)	1,120	1,043	-77	-6.8
34	FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT	6,986	6,937	-49	-0.7
344	Fabricated Structural Metal Products	1,925	2,064	139	7.2
349	Miscellaneous Fabricated Metal Products	1,584	1,576	-8	-0.5
35	MACHINERY, EXCEPT ELECTRICAL	21,436	25,600	4,164	19.4
353	Construction, Mining, and Materials Handling Machinery and Equipment	371	389	18	4.9
354	Metalworking Machinery and Equipment	2,560	3,103	543	21.2
355	Special Industry Machinery, Except Metalworking Machinery	2,997	2,702	-295	-9.8
356	General Industrial Machinery and Equipment	3,433	4,771	1,338	39.0

MANUFACTURING IN NEW HAMPSHIRE

SIC (20-39)

EMPLOYMENT CHANGES BETWEEN OES SURVEY PERIODS
(SECOND QUARTER 1983 - SECOND QUARTER 1986)

SIC CODE	INDUSTRY DESCRIPTION	2nd. Qtr. 1983 ESTIMATED EMPLOYMENT	2nd. Qtr. 1986 ESTIMATED EMPLOYMENT	NUMERICAL CHANGE	PERCENT CHANGE
357	Office, Computing, and Accounting Machines	10.670	12,879	2,209	20.7
359	Miscellaneous Machinery, Except Electrical	1,126	1,460	334	29.7
36	ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT, AND SUPPLIES	22,030	23,397	1,367	6.2
362	Electrical Industrial Apparatus	785	615	-170	-21.7
364	Electric Lighting and Wiring Equipment	2,317	2,780	463	20.0
366	Communication Equipment	8,962	10,208	1,246	13.9
367	Electronic Components and Accessories	8,339	8,597	258	3.1
369	Miscellaneous Electrical Machinery, Equipment and Supplies	986	617	369	37.4
37	TRANSPORTATION EQUIPMENT	805	1,403	598	74.3
38	INSTRUMENTS AND RELATED SUPPLIES	7,058	7,912	854	12.1
381	Engineering and Scientific Instruments	2,503	2,378	-125	-5.0
382	Measuring and Controlling Instruments	3,292	3,993	701	21.3
39	MISCELLANEOUS MANUFACTURING INDUSTRIES	1,778	2,095	317	17.8
399	Miscellaneous Manufacturing	970	1,233	263	27.1
20-23,26-31	NONDURABLE GOODS MFG.	40,478	36,265	-4,213	-10.4
20	FOOD AND KINDRED PRODUCTS	2,849	3,007	158	5.5
208	Beverages	1,048	999	-49	-4.7
22	TEXTILE MILL PRODUCTS	3,862	3,471	-391	-10.1
223	Broad Woven Fabric Mills, Wool	1,070	1,041	-29	-2.7
224	Narrow Fabrics and Other Smallwares Mills: Cotton, Wool, Silk, and Man-Made Fiber	963	997	34	3.5

MANUFACTURING IN NEW HAMPSHIRE

SIC (20-39)

EMPLOYMENT CHANGES BETWEEN OES SURVEY PERIODS
(SECOND QUARTER 1983 - SECOND QUARTER 1986)

SIC CODE	INDUSTRY DESCRIPTION	2nd. Qtr. 1983 ESTIMATED EMPLOYMENT	2nd. Qtr. 1986 ESTIMATED EMPLOYMENT	NUMERICAL CHANGE	PERCENT CHANGE
225	Knitting Mills	647	426	-221	-34.2
23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS	2,800	2,413	-387	-13.8
233	Women's Misses', and Juniors Outerwear	2,109	1,573	-536	-25.4
26	PAPER AND ALLIED PRODUCTS	5,320	5,497	177	3.3
262	Paper Mills, Except Building Paper Mills	2,645	2,657	12	0.5
27	PRINTING, PUBLISHING, AND ALLIED INDUSTRIES	6,812	7,253	441	6.5
271	Newspapers: Publishing, Publishing and Printing	1,879	2,137	258	13.7
275	Commercial Printing	2,344	2,240	-104	-4.4
28 & 29	Chemicals, Petroleum Refining & Rel. Ind.	996	1,143	147	14.8
30	RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS	9,037	8,796	-241	-2.7
302	Rubber and Plastics Footwear	1,254	621	-633	-50.5
306	Fabricated Rubber Products Not Elsewhere Classified	1,279	1,047	-232	-18.1
307	Miscellaneous Plastics Products	6,493	7,128	635	9.8
31	LEATHER AND LEATHER PRODUCTS	8,802	4,685	-4,117	-46.8
314	Footwear, Except Rubber	7,736	3,996	-3,740	-48.3

* Totals include estimates for the entire survey, including industries which have not met publication criteria.

NEW HAMPSHIRE
STAFFING PATTERNS - MANUFACTURING INDUSTRIES
BY MAJOR OCCUPATION GROUP

OES CODE	INDUSTRY	SECOND QTR. 1986 ESTIMATED EMPLOYMENT	PERCENT						
			MANAGERIAL 10000-19999	PROFESSIONAL AND TECHNICAL 20000-39000	SALES 40000-49000	CLERICAL 50000-59999	SERVICE 60000-69999	AGRICULTURAL 70000-79999	PRODUCTION 80000-98999
20-39	TOTAL ALL MANUFACTURING	118,559	8.3	14.5	2.7	12.3	1.5	0.3	60.4
24,25, 32-39	DURABLE GOODS MANUFACTURING	82,294	9.0	18.0	2.1	12.5	1.3	0.4	56.7
24	LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE	5,787	6.3	3.0	3.4	9.0	1.5	5.9	70.9
242	Sawmills and Planing Mills	1,556	7.6	1.6	2.7	8.2	1.5	9.6	68.8
243	Millwork, Veneer, Plywood, & Structural Wood Members	1,492	5.2	2.5	7.0	8.8	0.8	0.1	75.6
25	FURNITURE AND FIXTURES	1,474	5.0	5.0	3.5	14.5	1.4	-	70.6
251	Household Furniture	988	4.4	3.5	2.5	15.0	1.4	-	73.2
32	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS	3,421	6.5	5.8	3.6	8.1	1.3	-	74.7
329	Abrasive, Asbestos, and Miscellaneous Nonmetalic Mineral Products	1,559	5.5	8.0	3.5	7.3	2.6	-	73.1
33	PRIMARY METAL INDUSTRIES	4,268	4.6	5.6	1.5	6.2	0.8	-	81.3
335	Rolling, Drawing, and Extruding Of Nonferrous Metals	1,965	2.4	3.9	1.3	3.8	0.5	-	88.1
336	Nonferrous Foundries (Castings)	1,043	7.1	7.1	1.2	10.5	0.9	-	73.2
34	FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT	6,937	5.5	5.1	1.1	9.4	1.6	-	77.2
344	Fabricated Structural Metal Products	2,064	6.2	7.6	2.1	9.0	1.1	-	74.0

NEW HAMPSHIRE
STAFFING PATTERNS - MANUFACTURING INDUSTRIES
BY MAJOR OCCUPATION GROUP

OES CODE	INDUSTRY	SECOND QTR. 1986 ESTIMATED EMPLOYMENT	PERCENT						
			MANAGERIAL 10000-19999	PROFESSIONAL AND TECHNICAL 20000-39000	SALES 40000-49000	CLERICAL 50000-59999	SERVICE 60000-69999	AGRICULTURAL 70000-79999	PRODUCTION 80000-98999
349	Miscellaneous Fabricated Metal Products	1,576	4.5	3.0	0.5	15.4	2.0	-	74.6
35	MACHINERY, EXCEPT ELECTRICAL	25,600	12.6	25.0	1.7	15.2	1.2	-	44.2
353	Construction, Mining, and Materials Handling Machinery and Equipment	389	5.4	9.5	0.5	9.0	0.5	-	75.1
354	Metalworking Machinery and Equipment	3,103	6.4	14.9	3.6	11.9	0.7	-	62.5
355	Special Industry Machinery, Except Metalworking Machinery	2,702	10.4	12.8	4.6	16.7	0.6	-	54.9
356	General Industrial Machinery and Equipment	4,771	4.6	9.5	2.0	9.1	1.2	-	73.6
357	Office, Computing, and Accounting Machines	12,879	18.1	39.1	0.6	18.7	1.4	-	22.1
359	Miscellaneous Machinery, Except Electrical	1,460	9.7	3.8	1.2	11.6	1.1	-	72.6
36	ELECTRICAL AND ELECTRONIC MACHINERY EQUIPMENT AND SUPPLIES	23,397	9.0	25.7	1.6	12.8	1.5	-	49.3
362	Electrical Industrial Apparatus	615	19.5	19.0	8.8	15.1	-	-	37.6
364	Electric Lighting and Wiring Equipment	2,780	7.0	8.4	0.8	6.8	0.5	-	76.5
366	Communication Equipment	10,208	9.5	44.6	0.8	18.1	2.3	0.1	24.6
367	Electronic Components and Accessories	8,597	8.6	12.3	2.3	8.9	1.1	-	66.7
369	Miscellaneous Electrical Machinery, Equipment and Supplies	617	3.4	2.3	0.8	5.3	0.5	-	87.7
37	TRANSPORTATION EQUIPMENT	1,403	5.2	5.8	0.7	6.6	0.3	-	81.4

NEW HAMPSHIRE
STAFFING PATTERNS - MANUFACTURING INDUSTRIES
BY MAJOR OCCUPATION GROUP

OES CODE	INDUSTRY	SECOND QTR. 1986 ESTIMATED EMPLOYMENT	PERCENT						
			MANAGERIAL 10000-19999	PROFESSIONAL AND TECHNICAL 20000-39000	SALES 40000-49000	CLERICAL 50000-59999	SERVICE 60000-69999	AGRICULTURAL 70000-79999	PRODUCTION 80000-98999
38	INSTRUMENTS AND RELATED SUPPLIES	7,912	7.5	15.0	2.4	13.6	1.3	-	60.2
381	Engineering and Scientific Instruments	2,378	9.6	22.8	3.8	19.9	1.9	-	41.9
382	Measuring and Controlling Instruments	3,993	6.6	13.3	2.3	9.9	0.8	-	67.1
39	MISCELLANEOUS MANUFACTURING INDUSTRIES	2,095	8.5	5.5	7.6	12.4	2.0	-	64.0
399	Miscellaneous Manufacturers	1,233	6.4	3.3	4.3	14.8	1.9	-	69.3
20-23 26-31	NONDURABLE GOODS MANUFACTURING	36,265	6.7	6.6	4.2	11.9	1.7	0.1	68.8
20	FOOD AND KINDRED PRODUCTS	3,007	4.9	2.7	6.2	10.9	2.3	0.2	72.8
208	Beverages	999	2.6	4.1	4.7	12.6	1.6	-	74.4
22	TEXTILE MILL PRODUCTS	3,471	4.9	2.9	1.9	8.5	1.8	-	80.0
223	Broad Woven Fabric Mills, Wool	1,041	5.8	3.0	0.6	8.3	2.2	-	80.1
224	Narrow Fabrics and Other Smallwares Mills: Cotton, Wool, Silk, and Man-Made Fiber	997	4.7	2.9	4.0	11.7	2.0	-	74.6
225	Knitting Mills	426	2.3	1.2	1.9	5.6	2.1	-	86.9
23	APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS	2,413	5.4	1.1	4.0	9.5	1.0	-	78.9
233	Women's, Misses' and Juniors Outerwear	1,573	3.9	0.5	2.3	7.4	1.1	-	84.8
26	PAPER AND ALLIED PRODUCTS	5,497	6.7	7.5	4.5	9.6	2.1	0.4	69.2
262	Paper Mills, Except Building Paper Mills	2,657	5.2	5.0	2.5	7.4	2.1	0.8	77.0

NEW HAMPSHIRE
STAFFING PATTERNS - MANUFACTURING INDUSTRIES
BY MAJOR OCCUPATION GROUP

OFS CODE	INDUSTRY	SECOND QTR. 1986 ESTIMATED EMPLOYMENT	PERCENT						
			MANAGERIAL 10000-19999	PROFESSIONAL AND TECHNICAL 20000-39000	SALES 40000-49000	CLERICAL 50000-59999	SERVICE 60000-69999	AGRICULTURAL 70000-79999	PRODUCTION 80000-98999
27	PRINTING, PUBLISHING, AND ALLIED INDUSTRIES	7,253	9.6	14.0	7.7	21.4	1.2	-	46.1
271	Newspapers: Publishing, Publishing and Printing	2,137	6.9	23.2	14.8	21.3	1.0	-	32.8
275	Commercial Printing	2,240	12.9	5.3	4.5	16.6	0.6	-	60.1
28 & 29	CHEMICALS, PETROLEUM REFINING AND RELATED INDUSTRIES	1,143	12.4	12.4	6.6	15.7	1.3	-	51.5
30	RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS	8,796	5.5	5.2	1.8	7.7	2.0	-	77.7
302	Rubber and Plastics Footwear	621	8.5	3.5	-	7.1	1.8	-	79.1
306	Fabricated Rubber Products Not Elsewhere Classified	1,047	4.0	4.1	1.8	5.5	1.6	-	82.9
307	Miscellaneous Plastics Products	7,128	5.4	5.5	2.0	8.1	2.1	-	76.9
31	LEATHER AND LEATHER PRODUCTS	4,685	6.2	3.2	3.1	11.0	1.6	-	74.9
314	FOOTWEAR, EXCEPT RUBBER	3,996	6.0	3.4	3.1	11.9	1.8	-	73.8

THE TWENTY NEW HAMPSHIRE MANUFACTURING OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK

RANK	OES CODE	OCCUPATIONAL TITLE	ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
1	93956	Assemblers and Fabricators-Except Machines, Electrical, Electronic and Precision	6,345	5.4
2	93905	Electrical and Electronic Assemblers	4,068	3.4
3	81008	First Line Supervisors and Manager/ Supervisors-Production and Operating Workers	3,084	2.6
4	55100	Secretaries	2,751	2.3
5	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	2,451	2.1
6	93114	Electrical and Electronic Equipment Assemblers-Precision	2,430	2.0
7	19005	General Managers and Top Executives	2,326	2.0
8	22505	Electrical and Electronic Engineering Technicians and Technologists	2,132	1.8
9	89108	Machinists	2,093	1.8
10	98902	Hand Packers and Packagers	2,027	1.7
11	22126	Electrical and Electronic Engineers	1,846	1.6
12	83002	Precision Inspectors, Testers, and Graders	1,823	1.5
13	15014	Industrial Production Managers	1,684	1.4
14	58008	Production, Planning and Expediting Clerks	1,532	1.3
15	98700	Freight, Stock, and Material Movers, Hand	1,450	1.2
16	91321	Machine Forming Operators and Tenders, Metal and Plastic	1,403	1.2
17	55338	Bookkeeping, Accounting, and Auditing Clerks	1,375	1.2
18	13011	Marketing, Advertising, and Public Relations Managers	1,296	1.1
19	92717	Sewing Machine Operators, Garment	1,280	1.1
20	98502	Machine Feeders and Offbearers	1,264	1.1

NEW HAMPSHIRE
STAFFING PATTERNS
ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
TOTAL ALL OCCUPATIONS		118,559	100.0
MANAGERS AND ADMINISTRATOR	10000-19999	9,840	8.3
Financial Managers	13002	903	0.8
Personnel, Training, And Labor Relations Managers	13005	373	0.3
Purchasing Managers	13008	281	0.2
Marketing, Advertising, And Public Relations Managers	13011	1,296	1.1
Administrative Services Managers	13014	260	0.2
English, Mathematics And Natural Sciences Managers	13017	1,072	0.9
Industrial Production Managers	15014	1,684	1.4
General Managers And top Executives	19005	2,326	2.0
All Other Managers And Administrators	19999	1,645	1.4
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	20000-39999	17,227	14.5
Accountants And Auditors	21114	879	0.7
Budget Analysts	21117	86	0.1
All Other Financial Specialists	21199	246	0.2
Purchasing Agents, Except Farm Products	21308	791	0.6
Personnel, Training, And Labor Relations Specialists	21511	307	0.2
Cost Estimators	21902	267	0.2
All Other Management Support Workers	21999	605	0.5
Metallurgists And Metallurgical, Ceramic, And Materials Engineers	22105	56	0.1
Chemical Engineers	22114	118	0.1
Electrical And Electronics Engineers	22126	1,846	1.6
Industrial Engineers, Except Safety	22128	878	0.7
Safety Engineers, Except Mining	22132	16	*
Mechanical Engineers	22135	1,029	0.9

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All Other Engineers	22199	1,090	0.9
Electrical And Electronic Engineering Technicians And Technologists	22505	2,132	1.8
Industrial Engineering Technicians And Technologists	22508	114	0.1
Mechanical Engineering Technicians And Technologists	22511	391	0.3
Drafters	22514	902	0.8
All Other Engineering And Related Technicians And Technologists	22599	467	0.4
Physicists And Astronomers	24102	19	*
Chemists	24105	105	0.1
All Other Physical Scientists	24199	14	*
Forest And Conservation Scientists	24302	25	*
Chemical Technicians And Technologists, Except Health	24505	218	0.2
All Other Physical And Life Science Technicians And Technologists	24599	23	*
Systems Analysts, Electronic Data Processing	25102	277	0.2
Computer Programmers	25105	916	0.8
Computer Programmer Aides	25108	293	0.2
Programmers-Numerical, Tool, And Process Control	25111	112	0.1
Operations And Systems Researchers And Analysts, Except Computer	25302	70	0.1
Mathematical Scientists	25310	96	0.1
Health Practitioners, Technologists, Technicians, And Related Health Occupations	32000	70	0.1
All Other Health Professional, Paraprofessionals, And Technicians	32999	23	*
Writers And Editors	34002	292	0.2
Technical Writers	34005	350	0.3
Reporters And Correspondents	34011	200	0.2
Photographers	34023	83	0.1
Artists And Related Workers	34035	179	0.2
Designers	34038	488	0.4
All Other Professional, Paraprofessional, And Technical Workers	39999	1,154	1.0

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
SALES OCCUPATIONS	40000-49999	3,241	2.7
First Line Supervisors And Manager/Supervisors-Sales And Related Occupations	41002	432	0.4
Sales Agents, Advertising	43023	208	0.2
Sales Engineers	49002	311	0.2
Sales Representatives, Scientific And Related Products And Services	49005	665	0.6
Other Sales Representatives	49008	1,143	1.0
Salespersons, Retail	49011	165	0.1
Cashiers	49023	34	*
News And Street Vendors, Telephone Solicitors, Door-To-Door Sales Workers, And Other Related Workers	49026	36	*
All Other Sales And Related Workers	49999	247	0.2
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	50000-59999	14,557	12.3
First Line Supervisors And Manager/Supervisors-Clerical And Administrative Support Occupations	51002	810	0.7
Adjustment Clerks	53123	345	0.3
Advertising Clerks	53908	84	0.1
Proofreaders And Copy Markers	53911	119	0.1
Secretaries	55100	2,751	2.3
Stenographers	55302	20	*
Receptionists And Information Clerks	55305	209	0.2
Typists	55308	238	0.2
Typists, Word Processor	55311	138	0.1
Personnel Clerks	55314	158	0.1
File Clerks	55321	83	0.1
Order Clerks	55323	490	0.4
Procurement Clerks	55326	174	0.1
Statistical Clerks	55328	10	*
Bookkeeping, Accounting, And Auditing Clerks	55338	1,375	1.2

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Payroll And Timekeeping Clerks	55341	348	0.3
Billing, Cost And Rate Clerks	55344	218	0.2
General Office Clerks	55347	1,137	1.0
Billing, Posting, And Calculating Machine Operators	56002	37	*
Computer Operators	56011	252	0.2
Peripheral EDP Equipment Operators	56014	77	0.1
Data Entry Keyers	56017	488	0.4
Data Keyers, Composing	56021	67	0.1
All Other Office Machine Operators	56099	130	0.1
Switchboard Operators	57102	208	0.2
Mail Clerks, Except Mail Machine Operators And Postal Service	57302	36	*
Messengers	57311	15	*
Dispatchers-Except Police, Fire And Ambulance	58005	31	*
Production, Planning And Expediting Clerks	58008	1,532	1.3
Weighers, Measurers, Checkers, And Samplers-Recordkeeping	58017	27	*
Marking Clerks	58021	12	*
Stock Clerks, Stockroom, Warehouse Or Storage Yard	58023	1,169	1.0
Traffic, Shipping, And Receiving Clerks	58028	1,303	1.1
All Other Material Recording, Scheduling, And Distributing Workers	58099	189	0.2
All Other Clerical And Administrative Support Workers	59999	277	0.2
SERVICE OCCUPATIONS	60000-69999	1,731	1.5
First Line Supervisors And Manager/Supervisors-Service	61000	222	0.2
Guards And Watch Guards	63047	392	0.3
Food Beverage Preparation And Service Occupations	65000	8	*
Janitors And Cleaners	67005	1,019	0.9
All Other Cleaning And Building Service Workers, Except Private Households	67099	64	0.1

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All Other Service Workers	69999	26	*
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	70000-79999	375	0.3
First Line Supervisors And Manager/Supervisors-Agricultural, Forestry, Fishing, And Related Workers	72002	31	*
Fallers And Buckers	73002	72	0.1
Choke Setters	73005	55	0.1
Log Handling Equipment Operators	73008	54	*
Logging Tractor Operators	73011	96	0.1
Log Graders And Scalers	79008	47	*
All Other Agricultural, Forestry, Fishing, And Related Workers	79999	20	*
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE AND MATERIAL HANDLING OCCUPATIONS	80000-98999	71,588	60.4
First Line Supervisors And Manager/Supervisors-Mechanics, Installers And Repairers	81002	304	0.3
First Line Supervisors And Manager/Supervisors Construction Trades And Extractive Workers	81005	38	*
First Line Supervisors And Manager/Supervisors Production And Operating Workers	81008	3,084	2.6
First Line Supervisors And Manager/Supervisors-Transportation And Material Moving Machine And Vehicle Occupations	81011	137	0.1
First Line Supervisors And Manager/Supervisors-Helpers, Laborers, And Material Movers, Hand	81017	234	0.3
All Other First Line Supervisors And Manager/Supervisors-Production, Construction, Maintenance And Related	81099	128	0.1
Precision Inspectors, Testers And Graders	83002	1,823	1.5

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Production Inspectors, Testers, Graders, Sorters, Samplers, And Weighers	83005	2,451	2.1
Machinery Maintenance Mechanics	85110	891	0.8
Machinery Maintenance Mechanics-Textile Machines	85112	148	0.1
Machinery Maintenance Mechanics-Sewing Machines	85113	38	*
Machinery Maintenance Mechanics-Water Or Power Generation Plant	85118	42	*
All Other Machinery Maintenance Plant	85119	36	*
Millwrights	85123	185	0.2
Machinery Maintenance Workers	85128	215	0.2
Maintenance Repairers, General Utility	85132	1,170	1.0
Automotive Mechanics	85302	25	*
Bus And Truck Mechanics, And Diesel Engine Specialists	85311	47	*
Mobile Heavy Equipment Mechanics, Except Engines	85314	28	*
Electronics Repairers, Commercial And Industrial Equipment	85717	24	*
Heating, Air Conditioning, And Refrigeration Mechanics And Installers	85902	44	*
Precision Instrument Repairers	85905	90	0.1
Riggers	85935	13	*
Coin And Vending Machine Service And Repairers	85947	22	*
Menders	85956	94	0.1
All Other Mechanics, Installers And Repairers	85999	115	0.1
Carpenters	87102	609	0.5
Electricians	87202	421	0.4
Concrete And Terrazzo Finishers	87311	42	*
Painters And Paperhangers	87402	115	0.1
Plumbers And Pipefitters	87502	195	0.2
All Other Construction Trades Workers	87899	27	*
All Other Construction And Ext. Workers, Except Helpers	87999	83	0.1
Tool And Die Makers	89102	660	0.6

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Machinists	89108	2,093	1.8
Tool Grinders, Filers, Sharpeners, And Other Precision Grinders	89111	394	0.3
Pattern And Model Makers, Metal	89114	20	*
Precision Layout Workers, Metal	89117	66	0.1
Jewelers And Silversmiths	89123	23	*
Precision Hand Workers, Jewelry And Related Products	89126	51	*
Sheet Metal Workers	89132	449	0.4
All Other Precision Metal Workers	89199	55	0.1
Pattern And Model Makers-Wood	89302	47	*
Wood Machinists	89308	140	0.1
Cabinetmakers And Bench Carpenters	89311	372	0.3
Furniture Finishers	89314	29	*
All Other Precision Woodworkers	89399	52	*
Fabric And Apparel Patternmakers, And Layout Workers	89502	31	*
Custom Tailors And Sewers	89505	11	*
Upholsterers	89508	12	*
Shoe And Leather Workers And Repairers-Precision	89511	474	0.4
Pressers, Delicate Fabrics	89517	18	*
Precision Dyers	89521	17	*
All Other Precision Textile, Apparel, And Furnishings Workers	89599	42	*
Precision Compositors, Typesetters, And Arrangers	89702	66	0.1
Job Printers	89705	43	*
Precision Lithography And Photoengraving Workers	89708	190	0.2
All Other Precision Printing Workers	89799	11	*
Slaughterers And Butchers	89802	33	*
Bakers, Manufacturing	89805	17	*
All Other Precision Food And Tobacco Workers	89899	24	*
Precision Foundry Mold And Core Makers	89902	295	0.3
Precision Patternmakers, Model Makers, Layout Workers, And Cutters	89908	22	*
Precision Detail Design Decorators And Painters	89911	44	*

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Precision Optical Goods Workers	89917	102	0.1
Medical Appliance Makers	89923	31	*
All Other Precision Workers	89999	104	0.1
Sawing Machine Tool Setters And Set-Up Operators, Metal And Plastic	91102	62	0.1
Lathe And Turning Machine Tool Setters And Set-Up Operators, Metal And Plastic	91105	810	0.7
Drilling And Boring Machine Tool Setters And Set-Up Operators, Metal And Plastic	91108	445	0.4
Milling And Planing Machine Setters And Set-Up Operators, Metal And Plastic	91111	270	0.2
Grinding, Lapping, And Buffing Machine Tool Setters And Set-Up Operators, Metal And Plastic	91114	397	0.3
Machine Tool Cutting Operators And Tenders, Metal And Plastic	91117	830	0.7
Punching Machine Setters And Set-Up Operators, Metal And Plastic	91302	204	0.2
Press And Press Brake Machine Setters And Set-Up Operators, Metal And Plastic	91305	284	0.2
Shear And Slitter Machine Setters And Set-Up Operators, Metal And Plastic	91308	93	0.1
Extruding And Drawing Machine Setters And Set-Up Operators, Metal And Plastic	91311	57	0.1
Rolling Machine Setters And Set-Up Operators, Metal And Plastic	91314	43	*
Machine Forming Operators And Tenders, Metal And Plastic	91321	1,403	1.2
Numerical Control Machine Tool Operators And Tenders, Metal And Plastic	91502	740	0.6
Combination Machine Tool Setters And Set-Up Operators, Metal And Plastic	91505	246	0.2

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Combination Machine Tool Operators, And Tenders, Metal And Plastic	91508	226	0.2
Welding Machine Setters And Set-Up Operators	91702	107	0.1
Welding Machine, Operators And Tenders	91705	36	*
Soldering And Brazing Machine Setters And Set-Up Operators	91708	36	*
Soldering And Brazing Machine Operators And Tenders	91711	26	*
Metal Fabricators, Structural Metal Products	91714	50	*
Plastic Molding And Casting Machine Setters And Set-Up Operators	91902	204	0.2
Plastic Molding And Casting Machine Operators And Tenders	91905	716	0.6
Metal Molding, Coremaking, And Casting Machine Setters And Set-Up Operators	91908	78	0.1
Metal Molding, Coremaking And Casting Machine Operators And Tenders	91911	22	*
Foundry Mold Assembly And Shakeout Workers	91914	37	*
Electrolytic Plating And Coating Machine Setters And Set-Up Operators, Metal And Plastic	91917	82	0.1
Electrolytic Plating And Coating Machine Operators And Tenders, Metal And Plastic	91921	127	0.1
Nonelectrolytic Plating And Coating Machine Operators And Tenders, Metal And Plastic	91926	13	*
Heating Equipment Setters And Set-Up Operators, Metal And Plastic	91928	27	*
Heat Treating, Annealing, And Tempering Machine Operators And Tenders, Metal And Plastic	91932	74	0.1
Furnace Operators And Tenders	91935	34	*
Heaters, Metal And Plastic	91938	15	*
All Other Metal And Plastic Machine Setters And Set-Up Operators	92197	342	0.3

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All Other Metal And Plastic Machine Operators And Tenders	92198	375	0.3
Sawing Machine Setters And Set-Up Operators	92302	76	0.1
Head Sawyers	92305	94	0.1
Sawing Machine Operators And Tenders	92308	243	0.2
Woodworking Machine Setters And Set-Up Operators, Except Sawing	92311	226	0.2
Woodworking Machine Operators And Tenders, Except Sawing	92314	485	0.4
Printing Press Machine Setters And Set-Up Operators	92510	81	0.1
Offset Lithographic Press Setters And Set-Up Operators	92512	604	0.5
Letterpress Setters And Set-Up Operators	92515	36	*
All Other Printing Press Setters And Set-Up Operators	92519	6	*
Photoengraving And Lithographing Photographers	92521	50	*
Specialty Materials Printing Machine Setters And Set-Up Operators	92522	98	0.1
Screen Printing Machine Setters And Set-Up Operators	92524	100	0.1
Bindery Machine Setters And Set-Up Operators	92525	100	0.1
All Other Printing Related Setters And Set-Up Operators	92529	67	0.1
Typesetting And Composing Machine Operators And Tenders	92541	226	0.2
Printing Press Machine Operators And Tenders	92543	468	0.4
Bindery Machine Operators	92546	167	0.1
All Other Printing Binding, And Related Machine Operators And Tenders	92549	129	0.1
Textile Machine Setters And Set-Up Operators	92702	103	0.1
Textile Machine Operators And Tenders-Winding, Twisting, Knitting, Weaving, And Cutting	92705	851	0.7

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Extruding And Forming Machine Operators And Tenders, Synthetic Or Glass Fibers	92708	45	*
Textile Draw-Out Machine Operators And Tenders	92711	27	*
Textile Bleaching And Dyeing Machine Operators And Tenders	92714	135	0.1
Sewing Machine Operators, Garment	92717	1,280	1.1
Sewing Machine Operators, Non-Garment	92721	110	0.1
Shoe Sewing Machine Operators And Tenders	92723	980	0.8
Laundry And Dry Cleaning Machine Operators And Tenders	92726	15	*
Pressing Machine Operators And Tenders	92728	112	0.1
Electronic Semiconductor Processors	92902	166	0.1
Paper Goods Machine Setters And Set-Up Operators	92914	249	0.2
Cooking Machine Operators And Tenders, Food And Tobacco	92917	42	*
Roasting, Baking, And Drying Machine Operators And Tenders, Food And Tobacco	92921	26	*
Furnace, Kiln, Oven, Drier, Or Kettle Operators And Tenders	92923	62	0.1
Boiler Operators And Tenders	92926	120	0.1
Dairy Processing Equipment Operators, Including Setters	92923	38	*
Chemical Equipment Controllers And Operators	92935	116	0.1
Chemical Equipment Tenders	92938	35	*
Cutting And Slicing Machine Setters And Set-Up Operators And Tenders	92941	120	0.1
Cutting And Slicing Machine Operators And Tenders	92944	458	0.4
Coating, Painting, And Spraying Machine Setters And Set-Up Operators	92951	188	0.2
Coating, Painting, And Spraying Machine Operators And Tenders	92953	493	0.4

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Cementing And Gluing Machine Operators And Tenders	92956	307	0.3
Cleaning, Washing, And Pickling Equipment Operators And Tenders	92958	130	0.1
Separating, Filtering, Clarifying Precipitating, And Still Machine Operators And Tenders	92962	37	*
Crushing, Grinding, Mixing, And Blending Machine Operators And Tenders	92965	504	0.4
Extruding, Forming, Pressing, And Compacting Machine Setters And Set-Up Operators	92968	104	0.1
Extruding, Forming, Pressing, And Compacting Machine Operators And Tenders	92971	739	0.6
Packaging And Filling Machine Operators And Tenders	92974	959	0.8
All Other Machine Setters And Set-Up Operators	92997	208	0.2
All Other Machine Operators And Tenders	92998	941	0.8
Machine Builders And Other Precision Machine Assemblers	93105	473	0.4
Fitters, Structural Metal-Precision	93108	44	*
Electromechanical Equipment Assemblers-Precision	93111	1,141	1.0
Electrical And Electronic Equipment Assemblers-Precision	93114	2,430	2.0
Watch, Clock, And Chronometer Assemblers, Adjusters, And Calibrators-Precision	93117	16	*
All Other Precision Assemblers, Metal	93197	364	0.3
Machine Assemblers	93902	177	0.1
Electrical And Electronic Assemblers	93905	4,068	3.4
Coil Winders, Tapers, And Finishers	93908	120	0.1
Tire Building Machine Operators	93911	17	*
Welders And Cutters	93914	660	0.6
Solderers And Brazers	93917	409	0.3
Pressers, Hand	93921	23	*

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Sewers, Hand	93923	278	0.2
Cutters And Trimmers, Hand	93926	453	0.4
Portable Machine Cutters	93928	41	*
Cannery Workers	93935	15	*
Meat, Poultry And Fish Cutters And Trimmers, Hand	93938	291	0.2
Metal Pourers And Casters, Basic Shapes	93941	74	0.1
Moulders And Casters, Hand	93944	221	0.2
Painting, Coating, And Decorating Workers, Hand	93947	106	0.1
Engraving And Printing Workers, Hand	93951	12	*
Grinding And Polishing Workers, Hand	93953	950	0.1
Assemblers And Fabricators- Except Machine, Electrical, Electronic And Precision	93956	6,345	5.4
All Other, Hand Workers	93999	2,081	1.8
Water And Liquid Waste Treatment Plant And System Operators	95002	30	*
Power Distributors And Dispatchers	95028	14	*
Stationary Engineers	95032	10	*
All Other Plant And System Operators	95099	51	*
Truck Drivers, Heavy Or Tractor Trailer	97102	1,138	1.0
Truck Drivers, Light-Include Delivery And Route Workers	97105	359	0.3
Driver/Sales Workers	97117	234	0.2
All Other Transportation And Related Workers	97899	109	0.1
Grader, Dozer, And Scraper Operators	97938	26	*
Crane And Tower Operators	97944	65	0.1
Industrial Truck And Tractor Operators	97947	700	0.6
Conveyor Operators And Tenders	97951	94	0.1
All Other Material Moving Equipment Operators	97999	131	0.1
Mechanic And Repairer Helpers	98102	201	0.2
Construction Trades And Extractive Worker Helpers	98300	124	0.1

STAFFING PATTERNS

ALL MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Machine Feeders And Offbearers	98502	1,264	1.1
Freight, Stock, And Material Movers, Hand	98700	1,450	1.2
Hand Packers And Packagers	98902	2,027	1.7
Vehicle Washers And Equipment Cleaners	98905	22	*
All Other Helpers, Laborers, And Material Movers, Hand	98999	2,307	1.9

* LESS THAN 0.05 PERCENT

SUMMARY

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING

(SIC 24, 25, 32 - 39)

There were 82,294 wage and salary workers employed in the Durable Goods Manufacturing sector during the occupational survey period of the second quarter of 1986. More than half of these jobs (56.7 percent) were in the Production, Construction, Operating, Maintenance and Material Handling Occupational group. This was followed by the Professional, Paraprofessional and Technical group (18 percent) and the Clerical group (12.5 percent).

Assemblers and fabricators of all types, including machine, precision, electrical, and electronic accounted for 13,309 workers or (16.2 percent) of the total employment. Compared with the previous survey conducted in 1983, this represents an increase of 2,931 assemblers. Systems Analysts and Computer Programmers accounted for 1,425 workers, an increase of 301 workers from the 1983 survey of Manufacturing Industries. Electrical and Electronic Technicians and Technologists also showed an increase in employment from the 1983 survey. Employment in this occupation grew from 1,533 to 2,103 (37.2 percent).

THE TWENTY OCCUPATIONS IN DURABLE GOODS MANUFACTURING EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK

RANK	OES CODE	OCCUPATIONAL TITLE	ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
1	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	5,670	6.9
2	93905	Electrical and Electronic Assemblers	4,068	4.9
3	93114	Electrical and Electronic Equipment Assemblers-Precision	2,430	3.0
4	55100	Secretaries	2,310	2.8
5	22505	Electrical and Electronic Engineering Technicians and Technologists	2,103	2.6
6	81008	First Line Supervisors and Manager/ Supervisors-Production and Operating Workers	2,102	2.6
7	89108	Machinists	1,841	2.2
8	22126	Electrical and Electronics Engineers	1,817	2.2
9	83002	Precision Inspectors, Testers & Graders	1,638	2.0
10	19005	General Managers and Top Executives	1,534	1.9
11	83005	Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	1,500	1.8
12	58008	Production, Planning, and Expediting Clerks	1,314	1.6
13	15014	Industrial Production Managers	1,289	1.6
14	91321	Machine Forming Operators and Tenders, Metal and Plastic	1,228	1.5
15	93111	Electromechanical Equipment Assemblers-Precision	1,141	1.4
16	55338	Bookkeeping, Accounting and Auditing Clerks	962	1.1
17	13011	Marketing, Advertising, and Public Relations Managers	960	1.1
18	93953	Grinding and Polishing Workers, Hand	950	1.1
19	13017	Engineering, Mathematical and Natural Sciences Managers	931	1.1
20	97102	Truck Drivers, Heavy or Tractor Trailer	891	1.0

NEW HAMPSHIRE

STAFFING PATTERNS
DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
TOTAL ALL OCCUPATIONS		82,294	100.0
MANAGERS AND ADMINISTRATORS	10000-19999	7,418	9.0
Financial Managers	13002	712	0.9
Personnel, Training, And Labor Relations Managers	13005	271	0.3
Purchasing Managers	13008	200	0.2
Marketing, Advertising, And Public Relations Managers	13011	960	1.2
Administrative Services Managers	13014	227	0.3
English, Mathematics & Natural/ Sciences Managers	13017	931	1.1
Industrial Production Managers	15014	1,289	1.6
General Managers and Top Executives	19005	1,534	1.9
All Other Managers And Administrators	19999	1,294	1.5
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	20000-39999	14,846	18.0
Accountants And Auditors	21114	732	0.9
Budget Analysts	21117	86	0.1
All Other Financial Specialists	21199	198	0.2
Purchasing Agents, Except Farm Products	21308	685	0.8
Personnel, Training, And Labor Relations Specialists	21511	264	0.3
Cost Estimators	21902	177	0.2
All Other Management Support Workers	21999	506	0.6
Metallurgists And Metallurgical, Ceramic, And Materials Engineers	22105	56	0.1
Chemical Engineers	22114	41	*

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Electrical And Electronics Engineers	22126	1,817	2.2
Industrial Engineers, Except Mining	22128	827	1.0
Safety Engineers, Except Mining	22132	15	*
Mechanical Engineers	22135	875	1.1
All Other Engineers	22199	1,032	1.3
Electrical And Electronic Engineering Technicians And Technologists	22505	2,103	2.6
Industrial Engineering Technicians And Technologists	22508	106	0.1
Mechanical Engineering Technicians And Technologists	22511	372	0.5
Drafters	22514	867	1.1
All Other Engineering And Related Technicians And Technologists	22599	425	0.5
Physicists And Astronomers	24102	19	*
Chemists	24105	33	*
All Other Physical Scientists	24199	6	*
Forest & Conservation Scientists	24302	25	*
Chemical Technicians & Technologists, Except Health	24505	102	0.1
All Other Physical And Life Science Technicians And Technologists	24599	7	*
Systems Analysts, Electronic Data Processing	25102	228	0.3
Computer Programmers	25105	839	1.0
Computer Programmer Aides	25108	247	0.3
Programmers-Numerical, Tool, And Process Control	25111	111	0.1
Operations And Systems Researchers And Analysts, Except Computer	25302	70	0.1
Mathematical Scientists	25310	95	0.1
Health Practitioners, Technologists, Technicians And Related Health Occupations	32000	53	0.1

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All Other Health Professionals, Para-Professionals, And Technicians	32999	23	*
Writers And Editors	34002	50	0.1
Technical Writers	34005	287	0.3
Designers	34038	361	0.4
All Other Professional, Para-Professional And Technical Workers	39999	1,106	1.3
SALES OCCUPATIONS	40000-49999	1,704	2.1
First Line Supervisors And Manager/Supervisors-Sales And Related Occupations	41002	180	0.2
Sales Engineers	49002	289	0.4
Sales Representatives, Scientific And Related Products And Services	49005	549	0.7
Other Sales Representatives	49008	424	0.5
Salespersons, Retail	49011	93	0.1
All Other Sales & Related Workers	49999	169	0.2
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	50000-59999	10,246	12.5
First Line Supervisors And Manager/Supervisors-Clerical And Administrative Support Occupations	51002	505	0.6
Adjustment Clerks	53123	139	0.2
Secretaries	55100	2,310	2.8
Stenographers	55302	14	*
Receptionists And Information Clerks	55305	93	0.1
Typists	55308	138	0.2
Typists, Word Processor	55311	96	0.1
Personnel Clerks	55314	106	0.1
File Clerks	55321	60	0.1
Order Clerks	55323	271	0.3

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Procurement Clerks	55326	146	0.2
Bookkeeping, Accounting And Auditing Clerks	55338	962	1.1
Payroll And Timekeeping Clerks	55341	208	0.3
Billing, Cost, And Rate Clerks	55344	109	0.1
General Office Clerks	55347	750	0.9
Billing, Posting, And Calculating Machine Operators	56002	10	*
Computer Operators	56011	188	0.2
Peripheral EDP Equipment Operators	56014	77	0.1
Data Entry Keyers	56017	329	0.4
All Other Office Machine Operators	56099	79	0.1
Switchboard Operators	57102	135	0.2
Dispatchers-Except Police, Fire & Ambulance	58005	31	*
Production, Planning, And Expediting Clerks	58008	1,314	1.6
Weighers, Measurers, Checkers, And Samplers-Recordkeeping	58017	18	*
Stock Clerks-Stockroom Warehouse Or Storage Yard	58023	1,022	1.2
Traffic, Shipping, And Receiving Clerks	58028	796	1.0
All Other Material Recording, Scheduling, And Distributing Workers	58099	102	0.1
All Other Clerical And Administrative Support Workers	59999	238	0.3
SERVICES OCCUPATIONS	60000-69999	1,103	1.3
First Line Supervisors And Manager/Supervisors-Service	61000	86	0.1
Guards And Watch Guards	63047	287	0.3
Food Beverage Preparation And Service Occupations	65000	6	*
Janitors And Cleaners	67005	673	0.8

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All other Cleaning And Building Service Workers, Except Private Households	67099	49	0.1
All Other Service Workers	69999	2	*
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	70000-79999	346	0.4
First Line Supervisors And Manager/Supervisors-Agricultural, Forestry, Fishing And Related Workers	72002	24	*
Fallers And Buckers	73002	72	0.1
Choke Setters	73005	55	0.1
Log Handling Equipment Operators	73008	44	*
Logging Tractor Operators	73011	96	0.1
Log Graders And Scalers	79008	47	0.1
All Other Agricultural, Forestry, Fishing, And Related Workers	79999	8	*
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	80000-98999	46,631	56.7
First Line Supervisors And Manager/Supervisors-Mechanics, Installers And Repairers	81002	126	0.2
First Line Supervisors And Manager/Supervisors-Construction Trades And Extractive Workers	81005	27	*
First Line Supervisors And Manager/Supervisors-Production And Operating Workers	81008	2,102	2.6
First Line Supervisors And Manager/Supervisors-Transportation And Material Moving Machine And Vehicle Occupations	81011	57	0.1
First Line Supervisors And Manager/Supervisors-Helpers,			

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Laborers, And Material Movers, Hand	81017	132	0.2
All Other First Line Supervisors And Manager/Supervisors-Production, Construction, Maintenance And Related	81099	58	0.1
Precision Inspectors, Testers, And Graders	83002	1,638	2.0
Production Inspectors, Testers, Graders, Sorters, Samplers, And Weighers	83005	1,500	1.8
Machinery Maintenance Mechanics	85110	746	0.9
Millwrights	85123	56	0.1
Machinery Maintenance Workers	85128	109	0.1
Maintenance Repairers, General Utility	85132	621	0.8
Automotive Mechanics	85302	20	*
Bus And Truck Mechanics, And Diesel Engine Specialists	85311	19	*
Mobile Heavy Equipment Mechanics, Except Engines	85314	28	*
Electronics Repairers, Commercial And Industrial Equipment	85717	24	*
Heating, Air Conditioning, And Refrigeration Mechanics And Installers	85902	26	*
Precision Instrument Repairers	85905	60	0.1
Riggers	85935	13	*
All Other Mechanics, Installers And Repairers	85999	73	0.1
Carpenters	87102	567	0.6
Electricians	87202	249	0.3
Concrete & Terrazzo Finishers	87311	42	*
Painters And Paperhangers	87402	99	0.1
Plumbers And Pipefitters	87502	93	0.1
All Other Construction Trades Workers	87899	25	*
All Other Construction & Extractive Workers, Except Helpers	87999	55	0.1
Tool And Die Makers	89102	599	0.7

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Machinists	89108	1,841	2.2
Tool Grinders, Filers, Sharpeners, And Other Precision Grinders	89111	381	0.5
Pattern And Model Makers, Metal	89114	20	*
Precision Layout Workers, Metal	89117	66	0.1
Jewelers And Silversmiths	89123	23	*
Precision Hand Workers, Jewelry And Related Products	89126	51	0.1
Sheet Metal Workers	89132	433	0.5
All Other Precision Metal Workers	89199	50	0.1
Pattern And Model Makers-Wood	89302	47	0.1
Wood Machinists	89308	140	0.2
Cabinetmakers And Bench Carpenters	89311	372	0.5
Furniture Finishers	89314	29	*
All Other Precision Wood-workers	89399	52	0.1
Upholsterers	89508	12	*
Precision Foundry Mold And Core Makers	89902	295	0.4
Precision Optical Goods Workers	89917	102	0.1
Medical Appliance Makers	89923	31	*
All Other Precision Workers	89999	59	0.1
Sawing Machine Tool Setters And Set-Up Operators, Metal And Plastic	91102	62	0.1
Lathe And Turning Machine Tool Setters And Set-Up Operators, Metal And Plastic	91105	810	1.0
Drilling And Boring Machine Tool Setters And Set-Up Operators, Metal And Plastic	91108	445	0.5
Milling And Planing Machine Setters And Set-Up Operators, Metal And Plastic	91111	270	0.3
Grinding, Lapping, And Buffing Machine Tool Setters And Set-Up			

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Operators, Metal And Plastic	91114	397	0.5
Machine Tool Cutting Operators And Tenders, Metal And Plastic	91117	830	1.0
Punching Machine Setters And Set-Up Operators, Metal And Plastic	91302	167	0.2
Press And Press Brake Machine Setters And Set-Up Operators, Metal And Plastic	91305	168	0.2
Shear And Slitter Machine Setters And Set-Up Operators, Metal And Plastic	91308	92	0.1
Rolling Machine Setters And Set-Up Operators, Metal And Plastic	91314	21	*
Machine Forming Operators And Tenders, Metal And Plastic	91321	1,228	1.5
Numerical Control Machine Tool Operators And Tenders, Metal And Plastic	91502	724	0.9
Combination Machine Tool Setters And Set-Up Operators, Metal And Plastic	91505	196	0.2
Combination Machine Tool Operators And Tenders, Metal And Plastic	91508	215	0.3
Welding Machine Setters And Set-Up Operators	91702	107	0.1
Welding Machine Operators And Tenders	91705	36	*
Soldering And Brazing Machine Setters And Set-Up Operators	91708	36	*
Soldering And Brazing Machine Operators And Tenders	91711	26	*
Metal Fabricators, Structural Metal Products	91714	50	0.1
Plastic Molding And Casting Machine Operators And Tenders	91905	107	0.1
Metal Molding, Coremaking, And Casting Machine Setters And Set-Up Operators	91908	78	0.1

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Metal Molding, Coremaking And Casting Machine Operators And Tenders	91911	22	*
Foundry Mold Assembly And Shakeout Workers	91914	37	*
Electrolytic Plating And Coating Machine Setters And Set-Up Operators, Metal And Plastic	91917	82	0.1
Electrolytic Plating And Coating Machine Operators And Tenders, Metal And Plastic	91921	127	0.2
Nonelectrolytic Plating And Coating Machine Operators And Tenders, Metal And Plastic	91926	13	*
Heat Treating, Annealing And Tempering Machine Operators And Tenders, Metal And Plastic	91932	74	0.1
Furnace Operators And Tenders	91935	34	*
Heaters, Metal & Plastic	91938	15	*
All Other Metal And Plastic Machine Setters And Set-Up Operators	92197	359	0.4
All Other Metal And Plastic Machine Operators And Tenders	92198	361	0.4
Sawing Machine Setters And Set-Up Operators	92302	76	0.1
Head Sawyers	92305	94	0.1
Sawing Machine Operators Tenders	92308	243	0.3
Woodworking Machine Setters And Set-Up Operators, Except Sawing	92311	226	0.3
Woodworking Machine Operators And Tenders, Except Sawing	92314	485	0.6
Printing Press Machine Setters And Set-Up Operators	92510	33	*
Screen Printing Machine Setters And Set-Up Operators	92524	57	0.1
All Other Printing Related Setters And Set-Up Operators	92529	27	*
All Other Printing, Binding, And			

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
And Related Machine Operators And Tenders	92549	9	*
Sewing Machine Operators, Garment	92717	40	*
Sewing Machine Operators, Non-Garment	92721	41	*
Electronic Semiconductor Processors	92902	166	0.2
Furnace, Kiln, Oven, Drier, Or Kettle Operators And Tenders	92923	55	0.1
Boiler Operators And Tenders	92926	42	*
Chemical Equipment Controllers & Operators	92935	23	*
Cutting And Slicing Machine Setters And Set-Up Operators And Tenders	92941	27	*
Cutting And Slicing Machine Operators And Tenders	92944	140	0.2
Coating, Painting, And Spraying Machine Setters And Set-Up Operators	92951	152	0.2
Costing, Painting, And Spraying Machine Operators And Tenders	92953	275	0.3
Cementing And Gluing Machine Operators And Tenders	92956	13	*
Cleaning, Washing, And Pickling Equipment Operators And Tenders	92958	77	0.1
Separating, Fittering, Clarifying Precipitating Machine Operator	92962	11	*
Crushing, Grinding, Mixing, And Blending Machine Operators And Tenders	92965	136	0.2
Extruding, Forming, Pressing, And Compacting Machine Setters, And Set-Up Operators	92968	49	0.1
Extruding, Forming, Pressing, And Compacting Machine Operators And Tenders	92971	379	0.5
Packaging And Filling Machine			

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Operators And Tenders	92974	168	0.2
All Other Machine Setters And Set-Up Operators	92997	78	0.1
All Other Machine Operators And Tenders	92998	524	0.6
Machine Builders And Other Precision Machine Assemblers	93105	473	0.6
Fitters, Structural Metal-Precision	93108	44	*
Electromechanical Equipment Assemblers-Precision	93111	1,141	1.4
Electrical And Electronic Equipment Assemblers-Precision	93114	2,430	3.0
Watch, Clock, And Chronometer Assemblers, Adjusters, And Calibrators-Precision	93117	16	*
All Other Precision Assemblers, Metal	93197	364	0.4
Machine Assemblers	93902	177	0.2
Electrical And Electronic Assemblers	93905	4,068	4.9
Coil Winders, Tapers And Finishers	93908	120	0.1
Tire Building Machine Operators	93911	17	*
Welders And Cutters	93914	616	0.7
Solderers And Brazers	93917	409	0.5
Sewers, Hand	93923	41	*
Cutters And Trimmers, Hand	93926	35	*
Metal Pourers And Casters, Basic Shapes	93941	74	0.1
Molders And Casters, Hand	93944	39	*
Painting, Coating, And Decorating Workers, Hand	93947	101	0.1
Grinding And Polishing Workers, Hand	93953	950	1.1
Assemblers And Fabricators-Except Machine, Electrical, Electronic, And Precision	93956	5,670	6.9
All Other Hand Workers	93999	715	0.9
All Other Plant And System Operators	95099	14	*

STAFFING PATTERNS

DURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Truck Drivers, Heavy Or Tractor Trailer	97102	891	1.0
Truck Drivers, Light-Include Delivery And Route Workers	97105	216	0.3
All Other Transportation And Related Workers	97899	66	0.1
Grader, Dozer, And Scraper Operators	97938	26	*
Crane And Tower Operators	97944	56	0.1
Industrial Truck & Tractor Operators	97947	301	0.4
Conveyor Operators And Tenders	97951	42	*
All Other Material Moving Equipment Operators	97999	28	*
Mechanic And Repairer Helpers	98102	143	0.2
Construction Trades & Extractive Worker Helpers	98300	113	0.1
Machine Feeders And Offbearers	98502	796	1.0
Freight, Stock, And Material Movers, Hand	98700	726	0.9
Hand Packers And Packagers	98902	576	0.7
All Other Helpers, Laborers, And Material Movers, Hand	98999	1,134	1.4

* LESS THAN 0.05 PERCENT

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE

(SIC 24)

This major group includes logging camps engaged in cutting timber and pulpwood; merchant sawmills, lath mills, shingle mills, cooperage stock mills, planning mills, and plywood mills and veneer mills engaged in producing lumber and wood basic materials; and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes. This group does not include establishments producing furniture, musical instruments, toys, caskets, and playground equipment.

There were 5,787 wage and salary workers in this industry during the survey month of May 1986, an increase of 1,079 workers from the previous survey in 1983.

Our sample consisted of 116 units representing an employment of 4,565. Usable responses were received from 93 units or 80 percent of the units sampled. The reported employment was 4,002 or 87.7 percent of the employment in the sample.

SIC 24 LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	5,787	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE-OCCUPATIONS	366	6.32	-	-
Financial Managers	29	0.50	33.86	16.13
Personnel, Training, and Labor Relations Managers	12	0.21	12.36	9.68
Purchasing Managers	13	0.22	11.92	10.75
Marketing, Advertising, and Public Relations Managers	14	0.24	27.94	8.60
Engineering, Mathematical and Natural Sciences Managers	10	0.17	17.03	5.38
Industrial Production Managers	63	1.08	13.73	34.41
General Managers and Top Executives	216	3.72	12.24	61.29
All Other Managers and Administrators	9	0.16	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	172	2.97	-	-
Accountants and Auditors	26	0.45	19.76	16.13
All Other Financial Specialists	5	0.09	N.A.	N.A.
Purchasing Agents, Except Farm Products	29	0.50	18.54	17.20
Cost Estimators	13	0.22	28.37	6.45
All Other Management Support Workers	3	0.05	N.A.	N.A.
Industrial Engineers, Except Safety	4	0.07	11.18	4.30
All Other Engineers	2	0.03	N.A.	N.A.
All Other Engineering and Related Technicians and Technologists	1	0.02	N.A.	N.A.
Drafters	57	0.98	16.81	11.83
All Other Life Scientists	25	0.43	N.A.	N.A.
All Other Professional, Paraprofessional and Technical Workers	7	0.12	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	200	3.46	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	23	0.40	20.07	6.45

SIC 24 LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Sales Representatives, Scientific and Related Products and Services-Except Retail	27	0.46	27.77	4.30
Sales Representatives, Except Scientific and Related Products Or Services and Retail	91	1.57	15.07	21.51
Salespersons, Retail	55	0.95	25.67	6.45
All Other Sales and Related Workers	4	0.07	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	522	9.02	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	24	0.41	25.55	17.20
Secretaries	83	1.43	15.16	41.94
Receptionists and Information Clerks	9	0.15	7.86	7.53
Personnel Clerks	3	0.05	18.26	3.23
Order Clerks	13	0.22	35.50	5.38
Procurement Clerks	6	0.10	27.89	3.23
Bookkeeping, Accounting, and Auditing Clerks	167	2.87	15.61	51.61
Payroll and Timekeeping Clerks	11	0.19	20.93	9.68
Billing, Cost and Rate Clerks	7	0.12	4.52	5.38
General Office Clerks	67	1.15	28.55	29.03
Computer Operators	7	0.12	36.70	4.30
All Other Office Machine Operators	3	0.05	N.A.	N.A.
Switchboard Operators	6	0.10	13.95	5.38
Production, Planning and Expediting Clerks	16	0.28	9.06	10.75
Stock Clerks, Stockroom, Warehouse Or Storage Yard	35	0.60	20.74	8.60
Traffic, Shipping and Receiving Clerks	52	0.89	23.73	21.51
All Other Material Recording, Scheduling and Distributing Workers	5	0.09	N.A.	N.A.
All Other Clerical and Administrative Support Workers	8	0.14	N.A.	N.A.
SERVICE OCCUPATIONS	85	1.47	-	-

SIC 24 LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/Supervisors-Service	5	0.09	8.94	3.23
Guards and Watch Guards	18	0.31	9.30	6.45
All Other Food Service Workers	4	0.07	N.A.	N.A.
Janitors and Cleaners	54	0.93	12.70	21.51
All Other Cleaners and Building Service Workers	4	0.07	N.A.	N.A.
AGRICULTURAL, FORESTRY, FISHING, AND RELATED WORKERS	340	5.88	-	-
First Line Supervisors-Agricultural, Forestry, Fishing, and Related Occupations	24	0.41	31.10	12.90
Fallers and Buckers	72	1.24	37.88	8.60
Log Handling Equipment Operators	44	0.76	20.52	15.05
Logging Tractor Operators	96	1.65	39.02	16.13
Log Graders and Scalers	47	0.81	17.39	24.73
All Other Agricultural, Forestry, and Related Workers	57	0.98	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE AND MATERIAL HANDLING OCCUPATIONS	4,102	70.88	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	15	0.26	18.86	6.45
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	116	2.00	12.76	32.26
First Line Supervisors and Manager/Supervisors-Transportation and Material Moving Machine and Vehicle Occupations	7	0.12	6.39	5.38
First Line Supervisors and Manager/Supervisors-Helpers, Laborers, and Material Movers-Hand	14	0.24	21.19	4.30
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	2	0.03	N.A.	N.A.
Precision Inspectors, Testers, and Graders	8	0.14	40.51	3.23

SIC 24 LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	46	0.79	14.34	16.13
Machinery Maintenance Mechanics	51	0.88	16.91	26.88
Machinery Maintenance Workers	7	0.12	44.72	5.38
Maintenance Repairers, General Utility	62	1.07	18.08	24.73
Automotive Mechanics	6	0.10	19.72	3.23
Mobile Heavy Equipment Mechanics	18	0.31	1.76	4.30
All Other Mechanics, Installers, and Repairers	19	0.33	N.A.	N.A.
Carpenters	402	6.92	15.26	15.05
Electricians	31	0.53	19.52	7.53
Painters and Paperhangers	35	0.60	24.36	3.23
Plumbers and Pipefitters	14	0.24	25.46	3.23
All Other Construction and Extractive Workers, Except Helpers	35	0.60	N.A.	N.A.
All Other Precision Metal Workers	8	0.14	N.A.	N.A.
Wood Machinists	93	1.60	23.12	17.20
Cabinetmakers and Bench Carpenters	272	4.68	23.99	13.98
All Other Precision Woodworkers	5	0.09	N.A.	N.A.
Sawing Machine Setters and Set-Up Operators	49	0.84	13.30	10.75
Head Sawyers	94	1.62	9.63	31.18
Sawing Machine Operators and Tenders	203	3.49	15.03	37.63
Woodworking Machine Setters and Set-Up Operators	119	2.05	16.60	19.35
Woodworking Machine Operators and Tenders, Except Sawing	372	6.40	16.61	18.28
Furnace, Kiln, Oven, Drier, Or Kettle Operators and Tenders	12	0.21	12.08	8.60
Boiler Operators and Tenders, Low Pressure	22	0.38	16.39	4.30
Coating, Painting, and Spraying Machine Operators and Tenders	24	0.41	30.79	7.53
Packaging and Filling Machine Operators and Tenders	9	0.15	39.44	3.23
All Other Machine Setters and Set-Up Operators	40	0.69	N.A.	N.A.
All Other Machine Operators and Tenders	69	1.19	N.A.	N.A.
Assemblers and Fabricators-Except Machine, Electrical, Electronic, and Precision	452	7.78	14.24	15.05

SIC 24 LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Hand Workers	50	0.86	N.A.	N.A.
Truck Drivers, Heavy Or Tractor Trailer	287	4.94	16.88	43.01
Truck Drivers, Light-Include Delivery and Route Workers	33	0.57	22.92	8.60
All Other Transportation and Related Workers	11	0.19	N.A.	N.A.
Industrial Truck and Tractor Operators	88	1.51	12.13	30.11
All Other Material Moving Equipment Operators	29	0.50	N.A.	N.A.
Machine Feeders and Offbearers	237	4.08	16.23	22.58
Freight, Stock, and Material Movers, Hand	338	5.81	12.31	27.96
Hand Packers and Packagers	89	1.53	19.63	11.83
All Other Helpers, Laborers, and Material Movers, Hand	209	3.61	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 24)

RANK	OES CODE	OCCUPATIONAL TITLE	MAY 1986 ESTIMATED EMPLOYMENT
1	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	452
2	87102	Carpenters	402
3	92314	Woodworking Machine Operators and Tenders, Except Sawing	372
4	98700	Freight, Stock and Material Movers, Hand	338
5	97102	Truck Drivers, Heavy Or Tractor Trailer	287
6	89311	Cabinetmakers and Bench Carpenters	272
7	98502	Machine Feeders and Offbearers	237
8	19005	General Managers and Top Executives	216
9	92308	Sawing Machine Operators and Tenders	203
10	55338	Bookkeeping, Accounting and Auditing Clerks	167

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	61.3
2	55338	Bookkeeping, Accounting and Auditing Clerks	51.6
3	97102	Truck Drivers, Heavy Or Tractor Trailer	43.0
4	55100	Secretaries	41.9
5	92308	Sawing Machine Operators and Tenders	37.6

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
FURNITURE AND FIXTURES

(SIC 25)

This major group includes establishments primarily engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures.

During the survey month of May 1986 there were 1,474 wage and salary workers in the furniture and fixtures industry, an increase of 109 workers from the previous survey in 1983.

Our sample consisted of 27 units representing an employment of 1,422. Usable responses were received from 24 units or 88.9 percent of the units sampled. The reported employment was 1,219 or 85.7 percent of the employment in the sample.

SIC 25 FURNITURE AND FIXTURES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	1,474	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	74	5.02	-	-
Purchasing Managers	3	0.20	10.54	12.50
Marketing, Advertising, and Public Relations Managers	7	0.47	16.90	16.67
Industrial Production Managers	20	1.34	22.19	41.67
General Managers and Top Executives	29	1.95	13.04	54.17
All Other Managers and Administrators	15	1.02	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	74	5.02	-	-
Accountants and Auditors	7	0.47	21.67	20.83
Purchasing Agents, Except Farm Products	12	0.81	13.94	41.67
Personnel, Training, and Labor Relations Specialists	3	0.20	18.26	12.50
Cost Estimators	11	0.74	13.48	25.00
All Other Management Support Workers	1	0.07	N.A.	N.A.
Industrial Engineers, Except Safety	4	0.27	7.91	12.50
All Other Engineers	2	0.13	N.A.	N.A.
Drafters	17	1.14	9.84	25.00
All Other Engineering Technicians and Technologists	3	0.20	N.A.	N.A.
All Other Professional, Paraprofessional and Technical Workers	14	0.95	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	51	3.46	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	4	0.27	11.18	12.50
Sales Representatives, Except Farm Products	17	1.14	31.02	16.67
Salespersons, Retail	19	1.28	24.97	12.50
All Other Sales and Related Workers	11	0.75	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	214	14.52	-	-

SIC 25 FURNITURE AND FIXTURES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	11	0.74	19.50	20.83
Adjustment Clerks	9	0.60	26.99	12.50
Secretaries	19	1.28	17.54	37.50
Order Clerks	18	1.21	25.28	12.50
Bookkeeping, Accounting, and Auditing Clerks	23	1.54	17.93	45.83
Payroll and Timekeeping Clerks	3	0.20	10.54	12.50
Billing, Cost and Rate Clerks	4	0.27	28.51	12.50
General Office Clerks	19	1.28	15.96	41.67
Computer Operators	5	0.34	10.95	16.67
All Other Office Machine Operators	13	0.88	N.A.	N.A.
Switchboard Operators	4	0.27	13.69	16.67
Production, Planning, and Expediting Clerks	10	0.67	12.65	29.17
Stock Clerks-Stockroom, Warehouse Or Storage Yard	9	0.60	13.15	20.83
Traffic, Shipping and Receiving Clerks	50	3.36	12.98	54.17
All Other Material Recording, Scheduling and Distributing Workers	2	0.13	N.A.	N.A.
All Other Clerical and Administrative Support Workers	15	1.02	N.A.	N.A.
SERVICE OCCUPATIONS	21	1.42	-	-
Janitors and Cleaners	13	0.87	18.20	33.33
All Other Cleaning and Building Service Workers	1	0.07	N.A.	N.A.
All Other Service Workers	7	0.47	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	1,040	70.56	-	-
First Line Supervisors and Manager/Supervisors-Production, and Operating Workers	30	2.01	9.94	45.83
All Other First Line Supervisors, and Manager/Supervisors- Production, Construction, Maintenance and Related	1	0.07	N.A.	N.A.

SIC 25 FURNITURE AND FIXTURES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Inspectors, Testers and Related Occupations	3	0.20	N.A.	N.A.
Maintenance Repairers, General Utility	26	1.75	10.18	33.33
All Other Mechanics, Installers and Repairers	7	0.47	N.A.	N.A.
All Other Construction Trades Workers	1	0.07	N.A.	N.A.
All Other Precision Metal Workers	1	0.07	N.A.	N.A.
Wood Machinists	31	2.08	29.46	29.17
Cabinetmakers and Bench Carpenters	75	5.04	17.23	29.17
All Other Precision Woodworkers	65	4.41	N.A.	N.A.
All Other Precision Textile, Apparel and Furnishings Workers	12	0.81	N.A.	N.A.
All Other Metal and Plastic Machine Setters and Set-Up Operators	28	1.90	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	50	3.39	N.A.	N.A.
Sawing Machine Setters and Set-Up Operators	21	1.41	24.47	20.83
Sawing Machine Operators and Tenders	32	2.15	14.79	29.17
Woodworking Machine Setters and Set-Up Operators	101	6.78	20.48	33.33
Woodworking Machine Operators and Tenders	97	6.51	16.97	25.00
Boiler Operators and Tenders, Low Pressure	17	1.14	12.06	12.50
Coating, Painting and Spraying Machine Operators and Tenders	34	2.28	14.97	41.67
All Other Machine Setters and Set-Up Operators	6	0.40	N.A.	N.A.
All Other Machine Operators and Tenders	12	0.81	N.A.	N.A.
Painting, Coating, and Decorating Workers, Hand	37	2.48	9.74	16.67
Grinding, and Polishing Workers, Hand	43	2.89	18.40	29.17
Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	146	9.81	12.20	58.33
All Other Hand Workers	15	1.02	N.A.	N.A.
Truck Drivers, Heavy or Tractor Trailer	14	0.94	16.75	29.17

SIC 25 FURNITURE AND FIXTURES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Truck Drivers, Light-Include Delivery and Route Workers	8	0.54	25.62	20.83
All Other Material Moving Equipment Operators	2	0.13	N.A.	N.A.
Freight, Stock, and Material Movers, Hand	19	1.28	19.69	12.50
All Other Freight, Stock, and Material Movers, Hand	38	2.55	N.A.	N.A.
Hand Packers and Packagers	49	3.29	9.98	33.33
All Other Helpers, Laborers, and Material Movers, Hand	19	1.29	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 25)

RANK	OES CODE	OCCUPATIONAL TITLE	MAY 1986 ESTIMATED EMPLOYMENT
1	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	146
2	92311	Woodworking Machine Setters and Set-Up Operators, Except Sawing	101
3	92314	Woodworking Machine Operators and Tenders, Except Sawing	97
4	89311	Cabinetmakers and Bench Carpenters	75
5	58028	Traffic, Shipping, and Receiving Clerks	50
6	98902	Hand Packers and Packagers	49
7	93953	Grinding and Polishing Workers, Hand	43
8	98502	Machine Feeders and Offbearers	38
9	93947	Painting, Coating, and Decorating Workers, Hand	37
10	92953	Coating, Painting, and Spraying Machine Operators and Tenders	34

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	58.3
2	19005	General Managers and Top Executives	54.2
	58028	Traffic, Shipping and Receiving Clerks	54.2
4	55338	Bookkeeping, Accounting, and Auditing Clerks	45.8
	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	45.8

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
STONE, CLAY, GLASS AND CONCRETE PRODUCTS

(SIC32)

This major group includes establishments primarily engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, etc., from materials taken from the earth in the form of stone, clay and sand.

Firms in this industry during the survey month of May 1986, employed 3,421 wage and salary workers, an increase of 1,027 workers or 42.9 percent from a similar survey taken three years earlier.

Our sample consisted of 42 units representing an employment of 3,119. Usable responses were received from 32 units or 76.2 percent of the units sampled. The reported employment was 2,676 or 85.8 percent of the employment in the sample.

SIC 32 STONE, CLAY, GLASS AND CONCRETE PRODUCTS
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	3,421	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	222	6.49	-	-
Financial Managers	18	0.53	18.51	31.25
Personnel, Training, and Labor Relations Managers	10	0.29	16.43	12.50
Industrial Production Managers	37	1.08	11.50	43.75
General Managers and Top Executives	114	3.34	15.20	78.13
All Other Managers and Administrators	43	1.26	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	199	5.82	-	-
Accountants and Auditors	22	0.64	25.95	21.88
All Other Financial Specialists	6	0.18	N.A.	N.A.
Purchasing Agents-Except Wholesale, Retail, and Farm Products	4	0.12	41.08	9.37
All Other Management Support Workers	11	0.32	N.A.	N.A.
All Other Engineers	42	1.23	N.A.	N.A.
Drafters	26	0.76	20.13	18.75
All Other Engineering Technicians and Technologists	26	0.76	N.A.	N.A.
All Other Physical Scientists	11	0.32	N.A.	N.A.
All Other Physical and Life Science Technicians and Technologists	10	0.29	N.A.	N.A.
Systems Analysts	10	0.29	9.49	15.63
Computer Programmers	14	0.41	13.92	9.37
All Other Health Professionals, Paraprofessionals and Technicians	3	0.09	N.A.	N.A.
All Other Professionals, Para-professionals and Technicians	14	0.41	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	122	3.57	-	-
Sales Representatives, Scientific and Related Products and Services, Except Retail	18	0.53	16.76	12.50
Sales Representatives, Except Scientific and Related Products Or Services and Retail	45	1.32	24.17	31.25

SIC 32 STONE, CLAY, GLASS AND CONCRETE PRODUCTS
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All other Sales and Related Workers	59	1.72	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	279	8.16	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	9	0.26	4.97	12.50
Secretaries	58	1.70	18.89	43.75
Bookkeeping, Accounting and Auditing Clerks	51	1.49	16.96	50.00
General Office Clerks	33	0.97	27.19	40.63
All Other Office Machine Operators	10	0.29	N.A.	N.A.
Dispatchers-Except Police, Fire and Ambulance	31	0.91	33.62	18.75
Stock Clerks-Stockroom, Warehouse Or Storage Yard	22	0.64	2.03	18.75
Traffic, Shipping and Receiving Clerks	19	0.56	18.23	25.00
All Other Material Recording, Scheduling and Distributing Workers	14	0.41	N.A.	N.A.
All Other Clerical and Administrative Support Workers	32	0.94	N.A.	N.A.
SERVICE OCCUPATIONS	44	1.29	-	-
All Other Cleaners and Building Service Workers	5	0.15	N.A.	N.A.
All Other Service Workers	39	1.14	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	2,555	74.69	-	-
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	117	3.43	15.46	56.25
All Other Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	31	0.91	N.A.	N.A.

SIC 32 STONE, CLAY, GLASS AND CONCRETE PRODUCTS
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	109	3.19	4.76	21.87
All Other Inspectors, Testers, and Related Occupations	12	0.35	N.A.	N.A.
Machinery Maintenance Mechanics	60	1.76	17.52	28.13
Maintenance Repairers, General Utility	45	1.32	12.39	28.13
All Other Mechanics, Installers, and Repairers	32	0.94	N.A.	N.A.
Electricians	7	0.21	4.52	15.63
All Other Construction Trades Workers	64	1.87	N.A.	N.A.
All Other Construction and Extractive Workers, Except Helpers	13	0.38	N.A.	N.A.
Machinists	13	0.38	4.21	9.37
All Other Precision Metal Workers	9	0.26	N.A.	N.A.
Furnace, Kiln, Oven, Drier, Or Kettle Operators and Tenders	41	1.20	20.67	25.00
Cutting and Slicing Machine Setters and Set-Up Operators	27	0.79	4.54	15.63
Cutting and Slicing Machine Operators and Tenders	130	3.81	0.60	9.37
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	44	1.29	5.13	18.75
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	370	10.84	3.97	21.87
All Other Machine Setters and Set-Up Operators	89	2.60	N.A.	N.A.
All Other Machine Operators and Tenders	50	1.46	N.A.	N.A.
Grinding and Polishing Workers, Hand	19	0.56	15.25	9.37
Assemblers and Fabricators, Except Machine, Electrical, Electronic, and Precision	57	1.67	12.86	18.75
All Other Hand Workers	407	11.90	N.A.	N.A.
Truck Drivers, Heavy Or Tractor Trailer	489	14.33	15.13	46.87
All Other Transportation and Related Workers	7	0.21	N.A.	N.A.

SIC 32 STONE, CLAY, GLASS AND CONCRETE PRODUCTS
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Grader, Dozer, and Scraper Operators	25	0.73	8.39	9.37
Crane and Tower Operators	11	0.32	47.59	9.37
Industrial Truck and Tractor Operators	34	1.00	1.61	25.00
Machine Feeders and Offbearers	150	4.40	5.77	18.75
Freight, Stock, and Material Movers, Hand	47	1.38	36.23	21.87
Hand Packers and Packagers	34	1.00	4.46	18.75
All Other Helpers, Laborers and Material Movers, Hand	12	0.35	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 32)

RANK	OES CODE	OCCUPATIONAL TITLE	MAY 1986 ESTIMATED EMPLOYMENT
1	97102	Truck Drivers, Heavy Or Tractor Trailer	489
2	92971	Extruding, Forming, Pressing, and Compacting Machine Operators & Tenders	370
3	98502	Machine Feeders & Offbearers	150
4	92944	Cutting & Slicing Machine Operators & Tenders	130
5	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	117
6	19005	General Managers & Top Executives	114
7	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	109
8	85110	Machinery Maintenance Mechanics	60
9	55100	Secretaries	58
10	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic & Precision	57

THE SIX MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers & Top Executives	78.1
2	55338	Bookkeeping, Accounting & Auditing Clerks	56.3
	81008	First Line Supervisors & Manager/Supervisors-Production & Operating Workers	56.3
4	97102	Truck Drivers, Heavy Or Tractor Trailer	46.9
5	55100	Secretaries	43.8
	15014	Industrial Production Managers	43.8

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
NONFERROUS FOUNDRIES (CASTINGS)

(SIC 336)

This group includes establishments primarily engaged in manufacturing castings and die castings of aluminum, brass, bronze and other nonferrous metals and alloys. These establishments generally operate on a job or order basis, manufacturing castings for sales to others or for interplant transfer.

During the survey month of April 1986 there were 1,043 wage and salary workers employed in the manufacturing of nonferrous castings. This represents a decrease of 77 workers or 6.9 percent from a similar survey conducted three years earlier.

Our sample consisted of 14 units representing an employment of 1,187. Usable responses were received from 12 units or 85.7 percent of the units sampled. The reported employment was 998 or 84.1 percent of the employment in the sample.

SIC 336 NONFERROUS FOUNDRIES (CASTINGS)
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	1,043	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	74	7.09	-	-
Personnel, Training and Labor Relations Managers	5	0.48	25.30	25.00
Engineering, Mathematical and Natural Sciences Managers	7	0.68	23.47	25.00
Industrial Production Managers	17	1.64	16.95	41.67
General Managers and Top Executives	22	2.12	20.18	83.33
All Other Managers and Administrators	23	2.21	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	74	7.09	-	-
All Other Financial Specialists	3	0.29	N.A.	N.A.
Cost Estimators	9	0.87	32.39	25.00
All Other Management Support Workers	11	1.06	N.A.	N.A.
Metallurgists and Metallurgical, Ceramic, and Materials Engineers	6	0.58	22.36	25.00
Mechanical Engineers	9	0.87	21.37	33.33
All Other Engineers	10	0.96	N.A.	N.A.
Drafters	4	0.39	28.51	25.00
All Other Engineering Technicians and Technologists	3	0.29	N.A.	N.A.
All Other Physical and Life Science Technicians and Technologists	1	0.10	N.A.	N.A.
Programmers-Numerical, Tool and Process Control	4	0.39	28.51	25.00
All Other Professional, Paraprofessional and Technical Workers	14	1.34	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	13	1.25	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	109	10.45	-	-

SIC 336 NONFERROUS FOUNDRIES (CASTINGS)
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	11	1.06	33.40	33.33
Secretaries	8	0.77	25.31	33.33
Personnel Clerks	6	0.58	16.67	33.33
Order Clerks	7	0.68	14.29	33.33
Bookkeeping, Accounting and Auditing Clerks	21	2.03	27.15	75.00
General Office Clerks	4	0.39	35.36	25.00
All Other Office Machine Operators	11	1.06	N.A.	N.A.
Production, Planning and Expediting Clerks	9	0.87	19.25	33.33
Traffic, Shipping and Recieving Clerks	5	0.48	26.83	25.00
All Other Material Recording, Scheduling and Distributing Workers	1	0.10	N.A.	N.A.
All Other Clerical and Administrative Support Workers	26	2.49	N.A.	N.A.
SERVICE OCCUPATIONS	10	0.96	-	-
All Other Service Supervisors and Manager/Supervisors	1	0.10	N.A.	N.A.
All Other Protective Service Workers	3	0.29	N.A.	N.A.
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5	0.48	28.98	33.33
All Other Cleaners and Building Service Workers	1	0.10	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	763	73.15	-	-
First Line Supervisors and Manager/Supervisors-Production, and Operating Workers	20	1.93	21.45	33.33
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	1	0.10	N.A.	N.A.

SIC 336 NONFERROUS FOUNDRIES (CASTINGS)
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Inspectors, Testers and Related Occupations	19	1.83	N.A.	N.A.
Machinery Maintenance Mechanics	17	1.64	27.90	33.33
All Other Mechanics, Installers and Repairers	7	0.68	N.A.	N.A.
All Other Construction and Extractive Workers	3	0.29	-	-
Tool and Die Makers	21	2.03	14.52	33.33
Machinists	17	1.64	36.69	41.67
Pattern and Model Makers, Metal	19	1.83	42.01	25.00
Precision Foundry, Mold and Core Makers	69	6.66	29.86	58.33
All Other Precision Workers	8	0.77	N.A.	N.A.
Metal Molding, Coremaking, and Casting Machine Setters and Set-Up Operators	15	1.45	27.08	25.00
Furnace Operators and Tenders	11	1.06	24.05	33.33
All Other Metal and Plastic Machine Setters and Set-Up Operators	18	1.73	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	113	10.83	N.A.	N.A.
All Other Machine Setters and Set-Up Operators	3	0.29	N.A.	N.A.
All Other Machine Operators and Tenders	27	2.59	N.A.	N.A.
Metal Pourers and Casters, Basic Shapes	31	2.99	30.70	58.33
Grinding and Polishing Workers, Hand	41	3.96	24.23	41.67
All Other Hand Workers	65	6.23	N.A.	N.A.
All Other Motor Vehicle Operators	5	0.48	N.A.	N.A.
All Other Material Moving Equipment Operators	1	0.01	N.A.	N.A.
All Other Freight, Stock and Material Movers, Hand	5	0.48	N.A.	N.A.
All Other Helpers, Laborers, and Material Movers, Hand	227	21.76	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE
LARGEST NUMBER OF WORKERS
LISTED BY ORDER OF RANK
(SIC 336)

RANK	OES CODE	OCCUPATIONAL TITLE	APRIL 1986 ESTIMATED EMPLOYMENT
1	89902	Precision Foundry Mold and Core Makers	69
2	93956	Hand Grinding and Polishing Workers	41
3	93941	Metal Pourers and Casters, Basic Shapes	31
4	19005	General Managers and Top Executives	22
5	55338	Bookkeeping, Accounting and Auditing Clerks	21
	89102	Tool and Die Makers	21
7	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	20
8	89114	Pattern and Model Makers, Metal	19
9	15014	Industrial Production Managers	17
	89108	Machinists	17

THE SEVEN MOST FREQUENTLY REPORTED OCCUPATIONS
LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	83.3
2	55338	Bookkeeping, Accounting, and Auditing Clerks	75.0
3	89902	Precision Foundry Mold and Core Makers	58.3
	93941	Metal Pourers and Casters, Basic Shapes	58.3
5	93953	Hand Grinding and Polishing Workers	41.7
	89108	Machinists	41.7
	15014	Industrial Production Managers	41.7

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
FABRICATED METAL PRODUCTS,
EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT

(SIC 34)

This major group includes establishments primarily engaged in fabricating ferrous and nonferrous metal products such as metal cans, tinware, hand tools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products not elsewhere classified.

During the survey month of June 1986 there were 6,937 wage and salary workers, a decrease of 49 workers over a similar survey taken three years earlier.

Our sample consisted of 93 units representing an employment of 6,595. Usable responses were received from 71 units or 76.3 percent of the units sampled. The reported employment was 5,602 or 84.9 percent of the employment in the sample.

SIC 34 FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	6,937	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	385	5.55	-	-
Financial Managers	61	0.88	19.61	40.85
Personnel, Training and Labor Relations Managers	12	0.17	19.72	12.68
Purchasing Managers	16	0.23	19.37	18.31
Marketing, Advertising and Public Relations Managers	21	0.30	16.70	16.90
Engineering, Mathematical and Natural Sciences Managers	25	0.36	7.04	15.49
Industrial Production Managers	92	1.33	18.29	52.11
General Managers and Top Executives	126	1.82	13.28	60.56
All Other Managers and Administrators	32	0.46	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	352	5.07	-	-
Accountants and Auditors	25	0.36	12.52	19.72
All Other Financial Specialists	8	0.12	N.A.	N.A.
Purchasing Agents, Except Wholesale, Retail and Farm Products	33	0.48	11.34	29.58
Cost Estimators	28	0.41	12.27	22.54
All Other Management Support Workers	10	0.14	N.A.	N.A.
Safety Engineers, Except Mining	7	0.10	21.67	4.23
Industrial Engineers, Except Safety	28	0.41	23.96	8.45
Mechanical Engineers	66	0.96	18.33	25.35
All Other Engineers	13	0.19	N.A.	N.A.
Drafters	67	0.97	15.68	21.13
All Other Engineering Technicians and Technologists	30	0.43	N.A.	N.A.
Computer Programmer Aides	4	0.06	32.60	4.23
Programmers-Numerical, Tool, and Process Control	11	0.16	23.25	7.04
All Other Health Professionals, Paraprofessionals and Technicians	3	0.04	N.A.	N.A.
All Other Professionals, Paraprofessionals and Technicians	19	0.28	N.A.	N.A.

SIC 34 FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
SALES AND RELATED OCCUPATIONS	78	1.12	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	8	0.12	20.54	5.63
Sales Engineers	7	0.10	24.33	5.63
Sales Representatives, Scientific and Related Products and Services-Except Retail	10	0.14	48.79	5.63
Sales Representatives, Except Scientific and Related Products Or Services and Retail	38	0.55	20.67	16.90
All Other Sales and Related Workers	15	0.22	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	651	9.38	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Workers	14	0.20	15.97	12.68
Adjustment Clerks	10	0.14	14.83	7.04
Secretaries	69	1.00	14.69	42.25
Receptionists and Information Clerks	12	0.17	23.42	11.27
Personnel Clerks	6	0.09	11.79	5.63
Order Clerks	8	0.12	15.81	5.63
Bookkeeping, Accounting and Auditing Clerks	70	1.01	20.48	47.89
Payroll and Timekeeping Clerks	35	0.51	26.70	14.08
Billing, Cost and Rate Clerks	9	0.13	27.44	7.04
General Office Clerks	67	0.97	38.90	29.58
Computer Operators	12	0.17	12.64	8.45
Data Entry Keyers, Except Composing	10	0.14	31.31	4.23
All Other Office Machine Operators	3	0.04	N.A.	N.A.
Switchboard Operators	11	0.16	14.66	11.27
Production, Planning, and Expediting Clerks	61	0.88	13.93	22.53
Weighers, Measurers, Checkers, and Samplers-Recordkeeping	9	0.13	25.58	4.23
Stock Clerks, Stockroom, Warehouse Or Storage Yard	127	1.84	31.05	18.31

SIC 34 FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Traffic, Shipping and Receiving Clerks	100	1.45	8.61	40.85
All Other Material Recording, Scheduling and Distributing Workers	7	0.10	N.A.	N.A.
All Other Clerical and Administrative Support Workers	11	0.16	N.A.	N.A.
SERVICE OCCUPATIONS	113	1.63	-	-
First Line Supervisors, and Manager/Supervisors-Service	3	0.04	10.54	4.23
Guards and Watch Guards	12	0.17	16.46	5.63
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	90	1.30	7.71	35.21
All Other Cleaners and Building Service Workers	6	0.09	N.A.	N.A.
All Other Service Workers	2	0.03	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	5,358	77.24	-	-
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	219	3.17	8.11	59.15
First Line Supervisors and Manager/Superisors-Helpers, Laborers, and Material Movers, Hand	21	0.30	39.07	4.23
All Other First Line Supervisors, and Manager/Supervisors-Production, Construction, Maintenance and Related	19	0.28	N.A.	N.A.
Precision Inspectors, Testers and Graders	44	0.64	19.38	19.72
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	111	1.61	16.71	23.94
Machinery Maintenance Mechanics	88	1.27	6.43	23.94
Maintenance Repairers, General Utility	36	0.52	17.66	18.31
All Other Mechanics, Installers and Repairers	18	0.26	N.A.	N.A.

SIC 34 FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Electricians	25	0.36	12.39	7.04
Painters and Paperhangers	20	0.29	17.03	7.04
All Other Construction and Extractive Workers	94	1.35	N.A.	N.A.
Tool and Die Makers	96	1.39	6.46	19.72
Machinists	134	1.94	16.85	29.58
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	59	0.85	12.16	16.90
Precision Layout Workers, Metal	34	0.49	48.33	8.45
Sheet Metal Workers	184	2.66	26.48	12.68
All Other Precision Metal Workers	1	0.01	N.A.	N.A.
All Other Precision Workers	27	0.39	N.A.	N.A.
Sawing Machine Tool Setters and Set-Up Operators, Metal and Plastic	19	0.28	30.42	8.45
Lathe and Turning Machine Tool Setters and Set-Up Operators, Metal and Plastic	248	3.59	29.61	15.49
Drilling and Boring Machine Tool Setters and Set-Up Operators, Metal and Plastic	75	1.09	10.07	16.90
Grinding, Lapping, and Buffing Machine Tool Setters and Set-Up Operators, Metal and Plastic	38	0.55	20.92	11.27
Machine Tool Cutting Operators and Tenders, Metal and Plastic	308	4.46	4.83	9.86
Punching Machine Setters and Set-Up Operators, Metal and Plastic	51	0.74	21.60	21.13
Press and Press Brake Machine Setters and Set-Up Operators, Metal and Plastic	69	1.00	21.63	19.72
Shear and Slitter Machine Setters and Set-Up Operators, Metal and Plastic	40	0.58	38.39	14.08
Machine Forming Operators and Tenders, Metal and Plastic	610	8.83	5.29	23.94
Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	143	2.07	22.55	9.86
Combination Machine Tool Operators and Tenders, Metal and Plastic	28	0.41	14.15	4.23
Welding Machine Setters and Set-Up Operators	63	0.91	10.88	18.31

SIC 34 FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Metal and Plastic Machine Setters and Set-Up Operators	101	1.46	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	108	1.56	N.A.	N.A.
Coating, Painting, and Spraying Machine Setters and Set-Up Operators	51	0.74	26.81	9.86
Coating, Painting, and Spraying Machine Operators and Tenders	63	0.91	20.67	12.68
Cleaning, Washing, and Pickling Equipment Operators and Tenders	17	0.25	36.88	4.23
Packaging and Filling Machine Operators and Tenders	35	0.51	13.46	7.04
All Other Machine Operators and Tenders	4	0.06	N.A.	N.A.
Fitters, Structural Metal Precision	44	0.64	28.79	4.23
Welders and Cutters	214	3.10	21.29	25.35
Grinding and Polishing Workers, Hand	226	3.27	9.47	21.13
Assemblers and Fabricators, Except Machine, Electrical, Electronic and Precision	556	8.05	9.36	28.17
All Other Hand Workers	67	0.97	N.A.	N.A.
Truck Drivers, Heavy Or Tractor Trailer	46	0.67	13.04	16.90
Truck Drivers, Light-Include Delivery and Route Workers	66	0.96	12.52	28.17
Industrial Truck and Tractor Operators	37	0.54	15.60	11.27
All Other Material Moving Equipment Operators	10	0.14	N.A.	N.A.
Mechanic and Repairer Helpers	24	0.35	16.03	4.23
Machine Feeders and Offbearers	74	1.07	3.85	5.63
Freight, Stock, and Material Movers, Hand	76	1.10	8.38	8.45
Hand Packers and Packagers	62	0.90	14.89	21.13
All Other Helpers, Laborers and Material Movers, Hand	555	8.00	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 34)

RANK	OES CODE	OCCUPATIONAL TITLE	JUNE 1986 ESTIMATED EMPLOYMENT
1	91321	Machine Forming Operators and Tenders, Metal and Plastic	610
2	93956	Assemblers and Fabricators-Except, Machine, Electrical, Electronic and Precision	556
3	91117	Machine Tool Cutting Operators and Tenders, Metal and Plastic	308
4	91105	Lathe and Turning Machine Tool Setters and Set-Up Operators, Metal and Plastic	248
5	93953	Grinding and Polishing Workers, Hand	226
6	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	219
7	93914	Welders and Cutters	214
8	89132	Sheet Metal Workers	184
9	91502	Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	143
10	89108	Machinists	134

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	60.6
2	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	59.2
3	15014	Industrial Production Managers	52.1
4	55338	Bookkeeping, Accounting, and Auditing Clerks	47.9
5	55100	Secretaries	42.3

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
MACHINERY, EXCEPT ELECTRICAL

(SIC 35)

This major group includes establishments primarily engaged in manufacturing machinery and equipment (except electrical and transportation), machines powered by built-in or detachable motors (except electrical household appliances), and portable tools, both electric and pneumatic powered (except hand tools).

During the survey month of June 1986, there were 25,600 wage and salary workers employed in the nonelectrical machinery industries, an increase of 4,164 jobs or 19.4 percent over the three year period since the previous survey of June 1983. This reflects the economic recovery from a recession which the national economy experienced from 1980 - 1982. This group also had the highest employment in New Hampshire Manufacturing in 1986. An indication of the growth for this group is the increase in the number of establishments from 284 in 1980 to 381 in 1986, a 34 percent increase.

Our sample consisted of 200 units representing an employment of 23,440. Usable responses were received from 156 units or 78 percent of the units sampled. The reported employment was 18,020 or 76.9 percent of the employment in the sample.

SIC 35 MACHINERY, EXCEPT ELECTRICAL
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	25,600	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3,215	12.56	-	-
Financial Managers	248	0.97	6.46	43.59
Personnel, Training and Labor Relations Managers	136	0.53	5.54	14.10
Purchasing Managers	46	0.18	8.88	12.82
Marketing, Advertising and Public Relations Managers	605	2.36	32.84	15.38
Administrative Services Managers	62	0.24	37.18	4.49
Engineering, Mathematical and Natural Sciences Managers	359	1.40	40.75	25.00
Industrial Production Managers	436	1.70	9.26	38.46
General Managers and Top Executives	391	1.53	11.39	67.31
All Other Managers and Administrators	932	3.64	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	6,408	25.03	-	-
Accountants and Auditors	200	0.78	9.32	18.59
All Other Financial Specialists	125	0.49	N.A.	N.A.
Purchasing Agents, Except Wholesale, Retail and Farm Products	244	0.95	6.43	34.62
Personnel, Training and Labor Relations Specialists	107	0.42	11.17	7.69
Cost Estimators	50	0.20	10.79	15.38
All Other Management Support Workers	298	1.16	N.A.	N.A.
Metallurgists and Metallurgical, Ceramic, and Materials Engineers	5	0.02	27.57	1.92
Chemical Engineers	19	0.07	36.39	2.56
Electrical and Electronic Engineers	487	1.90	11.23	16.67
Mechanical Engineers	312	1.22	8.27	26.92
All Other Engineers	997	3.89	N.A.	N.A.
Electrical and Electronic Engineering Technicians and Technologists	931	3.63	28.02	12.82
Industrial Engineering Technicians and Technologists	32	0.12	29.99	3.85
Mechanical Engineering Technicians and Technologists	104	0.41	13.68	9.62
Drafters	370	1.44	19.62	27.56

SIC 35 MACHINERY, EXCEPT ELECTRICAL
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Engineering Technicians and Technologists	76	0.30	N.A.	N.A.
All Other Physical Scientists	5	0.02	N.A.	N.A.
All Other Physical and Life Science Technicians and Technologists	29	0.11	N.A.	N.A.
Computer Programmers	358	1.40	26.88	14.74
Computer Programmer Aides	181	0.71	23.30	7.05
Programmers-Numerical, Tool, and Process Control	53	0.21	19.39	6.41
All Other Mathematical Scientists	171	0.67	N.A.	N.A.
Health Practitioners, Technologists, Technicians, and Related Health Occupations	23	0.09	N.A.	N.A.
Writers and Editors	41	0.16	37.58	1.92
Technical Writers	164	0.64	34.64	5.13
Designers	176	0.69	25.81	3.21
All Other Professionals, Paraprofessionals and Technical Workers	850	3.32	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	445	1.74	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	54	0.21	18.38	7.05
Sales Engineers	121	0.47	13.41	10.26
Sales Representatives, Scientific and Related Products and Services-Except Retail	148	0.58	16.21	12.82
Sales Representatives, Except Scientific and Related Products Or Services and Retail	68	0.27	28.93	14.74
All Other Sales and Related Workers	54	0.21	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	3,902	15.24	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	315	1.23	15.15	35.26
Adjustment Clerks	58	0.23	43.55	4.49
Secretaries	1,136	4.43	14.00	40.38
Receptionists and Information Clerks	27	0.11	31.14	8.97

SIC 35 MACHINERY, EXCEPT ELECTRICAL
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Typists	26	0.10	17.16	4.49
Typists, Word Processor	14	0.05	24.33	1.93
Personnel Clerks	35	0.14	19.08	9.62
File Clerks	14	0.05	42.98	3.21
Order Clerks	68	0.27	33.95	13.46
Procurement Clerks	57	0.22	17.54	9.62
Bookkeeping, Accounting and Auditing Clerks	237	0.92	9.45	42.95
Payroll and Timekeeping Clerks	57	0.22	18.97	10.90
Billing, Cost and Rate Clerks	30	0.12	17.00	9.62
General Office Clerks	221	0.86	11.96	37.82
Computer Operators	74	0.29	30.82	8.33
Data Entry Keyers, Except Composing	79	0.31	28.45	8.97
All Other Office Machine Operators	100	0.39	N.A.	N.A.
Switchboard Operators	44	0.17	10.01	12.82
Production, Planning, and Expediting Clerks	552	2.15	28.81	24.36
Stock Clerks, Stockroom, Warehouse Or Storage Yard	432	1.69	8.94	25.00
Traffic, Shipping and Receiving Clerks	228	0.89	9.81	39.74
All Other Material Recording, Scheduling and Distributing Workers	50	0.20	N.A.	N.A.
All Other Clerical and Administrative Support Workers	48	0.19	N.A.	N.A.
SERVICE OCCUPATIONS	304	1.19	-	-
First Line Supervisors and/ Manager/Supervisors-Service	45	0.18	6.44	4.49
Guards and Watch Guards	94	0.37	8.94	5.13
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	146	0.57	8.30	24.36
All Other Cleaners and Building Service Workers	19	0.07	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	11,326	44.24	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	18	0.07	19.33	7.05

SIC 35 MACHINERY, EXCEPT ELECTRICAL
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/ Supervisors-Production and Operating Workers	666	2.60	9.73	41.67
First Line Supervisors and Manager/Supervisors- Transportation and Material Moving Machine and Vehicle Occupations	21	0.08	32.68	4.49
All Other First Line Supervisors and Manager/Supervisors- Production, Construction, Maintenance and Related	42	0.16	N.A.	N.A.
Precision Inspectors, Testers and Graders	757	2.95	8.42	27.56
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	203	0.79	25.60	10.90
Machinery Maintenance Mechanics	193	0.75	9.24	17.95
Millwrights	41	0.16	39.37	2.56
Machinery Maintenance Workers	28	0.11	39.88	3.85
Maintenance Repairers, General Utility	106	0.41	20.25	18.59
Automotive Mechanics	6	0.02	40.83	1.92
Heating, Air Conditioning, and Refrigeration	11	0.04	31.88	3.85
Precision Instrument Repairers	41	0.16	13.78	2.56
All Other Mechanics, Installers and Repairers	29	0.11	N.A.	N.A.
Carpenters	34	0.13	35.91	3.21
Electricians	76	0.30	9.33	10.90
Painters and Paperhangers	23	0.09	23.73	3.21
Plumbers and Pipefitters	30	0.12	37.37	1.92
All Other Construction and Extractive Workers	1	0.00	N.A.	N.A.
Tool and Die Makers	255	0.99	34.98	21.15
Machinists	1,094	4.27	15.64	58.33
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	210	0.82	20.97	7.05
Precision Layout Workers, Metal	9	0.04	21.66	3.21
Sheet Metal Workers	141	0.55	24.23	7.05
All Other Precision Woodworkers	22	0.09	N.A.	N.A.
All Other Precision Workers	71	0.28	N.A.	N.A.
Sawing Machine Tool Setters and Set-Up Operators, Metal and Plastic	34	0.13	23.20	8.97

SIC 35 MACHINERY, EXCEPT ELECTRICAL
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Lathe and Turning Machine Tool Setters and Set-Up Operators, Metal and Plastic	438	1.71	11.25	26.92
Drilling and Boring Machine Tool Setters and Set-Up Operators, Metal and Plastic	254	0.99	23.19	10.90
Milling and Planing Machine Tool Setters and Set-Up Operators, Metal and Plastic	192	0.75	17.78	14.74
Grinding, Lapping and Buffing Machine Tool Setters and Set-Up Operators, Metal and Plastic	297	1.16	16.32	13.46
Machine Tool Cutting Operators and Tenders, Metal and Plastic	255	0.99	21.76	10.90
Press and Press Brake Machine Setters and Set-Up Operators, Metal and Plastic	15	0.06	17.26	3.21
Shear and Slitter Machine Setters and Set-Up Operators, Metal and Plastic	32	0.12	42.46	1.92
Machine Forming Operators and Tenders, Metal and Plastic	30	0.12	46.18	4.49
Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	420	1.64	8.41	26.92
Combination Machine Tool Operators, Metal and Plastic	103	0.40	23.44	7.05
Combination Machine Tool Operators and Tenders, Metal and Plastic	74	0.29	17.21	8.33
Welding Machine Setters and Set-Up Operators	26	0.10	12.40	4.49
Soldering and Brazing Machine Setters and Set-Up Operators	14	0.05	40.60	2.56
Heat Treating, Annealing, and Tempering Machine Operators, and Tenders, Metal and Plastic	35	0.14	19.44	3.85
All Other Metal and Plastic Machine Setters and Set-Up Operators	380	1.48	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	38	0.15	N.A.	N.A.
Coating, Painting and Spraying Machine Setters and Set-Up Operators	7	0.03	36.70	3.21

SIC 35 MACHINERY, EXCEPT ELECTRICAL
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Coating, Painting and Spraying Machine Operators and Tenders	15	0.06	28.44	5.13
All Other Machine Setters and Set-Up Operators	15	0.06	N.A.	N.A.
All Other Machine Operators and Tenders	294	1.15	N.A.	N.A.
Machine Builders and Other Precision Machine Assemblers	415	1.62	17.94	12.82
Electromechanical Equipment Assemblers-Precision	164	0.64	32.13	5.13
Electrical and Electronic Equipment Assemblers Precision	853	3.33	17.76	9.62
All Other Precision Assemblers	340	1.33	N.A.	N.A.
Machine Assemblers	130	0.51	30.91	4.49
Electrical and Electronic Assemblers	372	1.45	31.36	10.26
Welders and Cutters	272	1.06	29.46	13.46
Solderers and Brazers	13	0.05	27.63	2.56
Grinding and Polishing Workers, Hand	64	0.25	18.59	8.33
Assemblers and Fabricators, Except Machine, Electrical, Electronic and Precision	1,033	4.03	[illegible].01	14.10
All Other Hand Workers	157	0.61	N.A.	N.A.
All Other Plant and System Operators	4	0.01	N.A.	N.A.
Truck Drivers, Heavy Or Tractor Trailer	13	0.05	26.31	4.49
Truck Drivers, Light-Include Delivery and Route Workers	24	0.09	19.59	9.62
All Other Transportation and Related Workers	28	0.11	N.A.	N.A.
All Other Material Moving Equipment Operators	106	0.41	N.A.	N.A.
Helpers-All Other Construction Trades	86	0.34	N.A.	N.A.
Freight, Stock, and Material Movers, Hand	55	0.21	30.80	6.41
Hand Packers and Packagers	76	0.30	42.38	7.69
All Other Helpers, Laborers, and Material Movers, Hand	25	0.10	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 35)

RANK	OES CODE	OCCUPATIONAL TITLE	JUNE 1986 ESTIMATED EMPLOYMENT
1	55100	Secretaries	1,136
2	89108	Machinists	1,094
3	93956	Assemblers and Fabricators, Except, Machine, Electrical, Electronic and Precision	1,033
4	22505	Electrical and Electronic Engineering Technicians and Technologists	931
5	93114	Electrical and Electronic Equipment Assemblers-Precision	853
6	83002	Precision Inspectors, Testers and Graders	757
7	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	666
8	13011	Marketing, Advertising and Labor Relations Managers	605
9	58008	Production, Planning and Expediting Clerks	552
10	22126	Electrical and Electronic Engineers	487

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	67.3
2	89108	Machinists	58.3
3	13002	Financial Managers	43.6
4	55338	Bookkeeping, Accounting and Auditing Clerks	42.9
5	81008	First Line Supervisor and Manager/Supervisors-Production and Operating Workers	41.7

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
ELECTRICAL AND ELECTRONIC
MACHINERY, EQUIPMENT AND SUPPLIES

(SIC 36)

This major group includes establishments engaged in manufacturing machinery, apparatus and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. The manufacture of household appliances is also included in this group

During the survey month of June 1986 there were 23,397 wage and salary workers employed in the electrical and electronic machinery, equipment and supplies industry. This represents an increase of 1,367 workers or (6.2 percent) over a similar survey taken three years earlier. This group had the second highest employment in New Hampshire manufacturing in 1986.

Our sample consisted of 105 units representing an employment of 23,616. Usable responses were received from 74 units or (70.5 percent) of the units sampled. The reported employment was 19,631 or (83.1 percent) of the employment in the sample.

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	23,397	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2,114	9.04	-	-
Financial Managers	252	1.08	14.98	59.46
Personnel, Training and Labor Relations Managers	61	0.26	8.86	40.54
Purchasing Managers	80	0.34	10.95	36.49
Marketing, Advertising and Public Relations Managers	191	0.82	8.48	33.78
Administrative Services Managers	137	0.58	17.44	14.86
Engineering, Mathematical, and Natural Sciences Managers	434	1.85	6.80	45.95
Industrial Production Managers	432	1.84	9.99	70.27
General Managers and Top Executives	343	1.46	8.74	77.03
All Other Managers and Administrators	184	0.79	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	6,023	25.74	-	-
Accountants and Auditors	376	1.61	3.39	28.38
Budget Analysts	34	0.15	6.96	8.11
All Other Financial Specialists	67	0.29	N.A.	N.A.
Purchasing Agents, Except Wholesale, Retail and Farm Products	255	1.09	4.94	52.70
Personnel, Training and Labor Relations Specialists	107	0.46	4.80	20.27
Cost Estimators	38	0.16	7.81	17.57
All Other Management Support Workers	171	0.73	N.A.	N.A.
Chemical Engineers	14	0.06	33.35	6.76
Electrical and Electronic Engineers	1,107	4.73	4.43	45.95
Industrial Engineers, Except Safety	365	1.56	2.68	24.32
Safety Engineers, Except Mining	7	0.03	14.29	4.05
Mechanical Engineers	366	1.56	4.56	35.14
All Other Engineers	288	1.16	N.A.	N.A.
Electrical and Electronic Engineering Technicians and Technologists	1,002	4.28	5.59	39.19

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Industrial Engineering Technicians and Technologists	32	0.14	18.85	4.05
Mechanical Engineering Technicians and Technologists	208	0.89	2.73	8.11
Drafters	240	1.02	12.45	36.49
All Other Engineering Technicians and Technologists	244	1.04	N.A.	N.A.
Chemists	22	0.09	20.12	8.11
All Other Physical Scientists	20	0.09	N.A.	N.A.
All Other Life Scientists	1	0.00	N.A.	N.A.
Chemical Technicians and Technologists, Except Health	54	0.23	13.25	10.81
All Other Science Technicians and Technologists	4	0.02	N.A.	N.A.
Systems Analysts	89	0.38	3.89	5.41
Computer Programmers	378	1.61	1.49	20.27
Computer Programmer Aides	55	0.23	2.76	8.12
Programmers, Numerical, Tool, and Process Control	31	0.13	14.71	14.86
All Other Mathematical Scientists	71	0.30	N.A.	N.A.
Health Practitioners, Technologists, Technicians, and Related Health Occupations	19	0.08	N.A.	N.A.
Technical Writers	105	0.45	3.26	13.51
Designers	71	0.30	9.26	6.76
All Other Professional, Para-professional and Technical Workers	182	0.78	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	380	1.62	–	–
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	49	0.21	24.94	17.57
Sales Engineers	82	0.35	8.67	17.57
Sales Representatives, Scientific and Related Products or Services and Retail	167	0.71	19.55	32.43
Sales Representatives, Except Scientific and Related Products Or Services and Retail	53	0.23	25.86	16.22
All Other Sales and Related Workers	29	0.12	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2,991	12.78	–	–

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	42	0.18	15.72	28.38
Adjustment Clerks	33	0.14	17.46	14.86
Secretaries	747	3.19	3.00	67.57
Stenographers	14	0.06	32.66	4.05
Receptionists and Information Clerks	19	0.08	29.68	17.57
Typists	58	0.25	9.74	12.16
Typists, Word Processor	40	0.17	6.75	6.76
Personnel Clerks	38	0.16	12.17	25.68
File Clerks	29	0.12	20.80	9.46
Order Clerks	78	0.33	30.89	21.62
Procurement Clerks	35	0.15	11.10	21.62
Bookkeeping, Accounting and Auditing Clerks	283	1.21	6.40	55.41
Payroll and Timekeeping Clerks	40	0.17	12.22	35.14
Billing, Cost and Rate Clerks	25	0.11	18.20	10.81
General Office Clerks	231	0.99	7.84	28.38
Computer Operators	40	0.17	7.20	14.86
Data Entry Keyers, Except Composing	154	0.66	4.58	17.57
All Other Office Machine Operators	47	0.20	N.A.	N.A.
Switchboard Operators	31	0.13	8.41	22.97
Production, Planning and Expediting Clerks	514	2.19	2.82	40.54
Stock Clerks-Stockroom, Warehouse Or Storage Yard	218	0.93	7.23	50.00
Traffic, Shipping, and Receiving Clerks	179	0.76	9.04	55.41
All Other Material Recording, Scheduling, and Distributing Workers	33	0.14	N.A.	N.A.
All Other Clerical and Administrative Support Workers	63	0.27	N.A.	N.A.
SERVICE OCCUPATIONS	350	1.50	-	-
First Line Supervisors and Manager/Supervisors-Service	20	0.09	16.43	5.41
Guards and Watch Guards	116	0.50	2.08	5.41
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	207	0.88	10.37	36.49

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Cleaners and Building Service Workers	7	0.03	N.A.	N.A.
AGRICULTURAL, FORESTRY, FISHING, AND RELATED OCCUPATIONS	6	0.03	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	11,533	49.29	–	–
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	56	0.24	10.74	20.27
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	533	2.28	7.63	62.16
First Line Supervisors and Manager/Supervisors-Transportation and Material Moving Machine and Vehicle Occupations	18	0.08	16.10	9.46
First Line Supervisors and Manager/Supervisors-Helpers, Laborers, and Material Movers, Hand	42	0.18	42.04	12.16
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	54	0.23	N.A.	N.A.
Precision Inspectors, Testers, and Graders	340	1.45	15.44	36.49
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	702	3.00	12.47	45.95
Machinery Maintenance Mechanics	227	0.97	19.52	21.62
Millwrights	9	0.04	34.78	4.05
Machinery Maintenance Workers	46	0.20	39.75	6.76
Maintenance Repairers, General Utility	163	0.70	12.54	35.14
All Other Mechanics, Installers and Repairers	51	0.22	N.A.	N.A.
Carpenters	27	0.12	5.74	8.11
Electricians	58	0.25	5.85	13.51
Plumbers and Pipefitters	12	0.05	8.74	4.05

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Construction and Extractive Workers	18	0.08	N.A.	N.A.
Tool and Die Makers	102	0.44	20.42	22.97
Machinists	251	1.07	14.78	36.49
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	10	0.04	45.28	5.41
Sheet Metal Workers	94	0.40	13.43	16.22
All Other Precision Metal Workers	26	0.11	N.A.	N.A.
All Other Precision Workers	2	0.01	N.A.	N.A.
Sawing Machine Tool Setters and Set-Up Operators, Metal and Plastic	5	0.02	30.33	4.05
Lathe and Turning Machine Tool Setters and Set-Up Operators, Metal and Plastic	59	0.25	33.14	8.11
Drilling and Boring Machine Tool Setters and Set-Up Operators, Metal and Plastic	40	0.17	38.12	6.76
Milling and Planing Machine Setters and Set-Up Operators, Metal and Plastic	25	0.11	30.65	8.11
Machine Tool Cutting Operators and Tenders, Metal and Plastic	59	0.25	40.09	6.76
Punching Machine Setters and Set-Up Operators, Metal and Plastic	52	0.22	27.43	13.51
Press and Press Brake Machine Setters and Set-Up Operators, Metal and Plastic	48	0.20	3.49	5.41
Shear and Slitter Machine Setters and Set-Up Operators, Metal and Plastic	11	0.05	16.51	4.05
Machine Forming Operators and Tenders, Metal and Plastic	113	0.48	22.80	8.11
Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	77	0.33	37.37	16.22
Combination Machine Tool Setters and Set-Up Operators, Metal and Plastic	24	0.10	35.01	6.76
Combination Machine Tool Operators and Tenders, Metal and Plastic	35	0.15	46.00	4.05
Welding Machine Setters and Set-Up Operators	8	0.03	31.87	4.05
Plastic Molding and Casting Machine Operators and Tenders	107	0.46	28.90	8.11

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Electrolytic Plating and Coating Machine Setters and Set-Up Operators, Metal and Plastic	73	0.31	33.57	9.46
All Other Metal and Plastic Machine Setters and Set-Up Operators	29	0.12	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	138	0.59	N.A.	N.A.
Printing Press Machine Setters and Set-Up Operators	6	0.03	9.13	4.05
All Other Printing Related Setters and Set-Up Operators	71	0.30	N.A.	N.A.
Coating, Painting, and Spraying Machine Setters and Set-Up Operators	38	0.16	37.56	9.46
Cleaning, Washing and Pickling Equipment Operators and Tenders	30	0.13	38.20	5.41
All Other Machine Setters and Set-Up Operators	9	0.04	N.A.	N.A.
All Other Machine Operators and Tenders	261	1.12	N.A.	N.A.
Electromechanical Equipment Assemblers-Precision	62	0.26	42.88	9.46
Electrical and Electronic Equipment Assemblers-Precision	1,134	4.84	16.84	24.32
All Other Precision Assemblers	27	0.12	N.A.	N.A.
Electrical and Electronic Assemblers	3,222	13.76	12.39	47.30
Solderers and Brazers	246	1.05	25.83	14.86
Assemblers and Fabricators, Except Machine, Electrical, Electronic and Precision	1,884	8.04	12.73	29.73
All Other Hand Workers	309	1.32	N.A.	N.A.
Plant and System Occupations	9	0.04	36.35	5.41
Truck Drivers, Light-Include Delivery and Route Workers	39	0.17	27.91	14.86
All Other Transportation and Related Workers	25	0.11	N.A.	N.A.
Industrial Truck and Tractor Operators	51	0.22	12.23	5.41
Mechanic and Repairer Helpers	12	0.05	29.46	4.05
Freight, Stock, and Material Movers, Hand	91	0.39	19.54	13.51

SIC 36 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT AND SUPPLIES
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Hand Packers and Packagers	117	0.50	26.52	17.57
All Other Helpers, Laborers, and Material Movers, Hand	146	0.62	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 36)

RANK	OES CODE	OCCUPATIONAL TITLE	JUNE 1986 ESTIMATED EMPLOYMENT
1	93905	Electrical and Electronic Assemblers	3,222
2	93956	Assemblers and Fabricators-Except, Machine, Electrical, Electronic and Precision	1,884
3	93114	Electrical and Electronic Equipment Assemblers-Precision	1,134
4	22126	Electrical and Electronic Engineers	1,107
5	22505	Electrical and Electronic Engineering Technicians and Technologists	1,002
6	55100	Secretaries	747
7	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	702
8	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	533
9	58008	Production, Planning and Expediting Clerks	514
10	13017	Engineering, Mathematical, and Natural Sciences Managers	434

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	77.0
2	15014	Industrial Production Managers	70.3
3	55100	Secretaries	67.6
4	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	62.2
5	13002	Financial Managers	59.5

OCCUPATIONAL EMPLOYMENT
DURABLE GOODS MANUFACTURING
INSTRUMENTS AND RELATED PRODUCTS

(SIC 38)

This major group includes establishments engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments; surgical, medical and dental instruments, equipment, and supplies; ophthalmic goods; photographic equipment and supplies; and watches and clocks.

During the survey month of April 1986 there were 7,912 wage and salary workers employed in the instruments and related products industries. This was a gain of 854 workers (12 percent) from a similar survey conducted three years earlier.

Our sample consisted of 62 units representing an employment of 7,501. Usable responses were received from 49 units or (79 percent) of the units sampled. The reported employment was 7,004 or (93.4 percent) of the employment in the sample.

SIC 38 INSTRUMENTS AND RELATED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	7,912	100.00	–	–
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	595	7.52	–	–
Financial Managers	55	0.69	6.06	61.22
Personnel, Training and Labor Relations Managers	23	0.29	2.38	30.61
Purchasing Managers	21	0.27	4.99	26.53
Marketing, Advertising and Public Relations Managers	80	1.01	9.59	38.78
Engineering, Mathematical, and Natural Sciences Managers	63	0.80	7.20	24.49
Industrial Production Managers	126	1.59	5.77	61.22
General Managers and Top Executives	109	1.38	6.62	77.55
All Other Managers and Administrators	118	1.49	–	–
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	1,184	14.96	–	–
Accountants and Auditors	42	0.53	7.02	36.73
Budget Analysts	7	0.09	6.39	6.12
All Other Financial Specialists	24	0.30	N.A.	N.A.
Purchasing Agents, Except Wholesale, Retail and Farm Products	76	0.96	4.24	48.98
Personnel, Training and Labor Relations Specialists	20	0.25	5.00	16.33
Cost Estimators	22	0.28	8.38	18.37
All Other Management Support Workers	12	0.15	N.A.	N.A.
Chemical Engineers	5	0.06	16.73	6.12
Electrical and Electronic Engineers	214	2.70	5.25	34.69
Industrial Engineers, Except Safety	91	1.15	2.36	18.37
Mechanical Engineers	75	0.95	5.01	40.82
All Other Engineers	25	0.32	N.A.	N.A.
Electrical and Electronic Engineering Technicians and Technologists	157	1.98	8.70	34.69
Industrial Engineering Technicians and Technologists	15	0.19	12.65	10.20
Mechanical Engineering Technicians and Technologists	18	0.23	7.24	12.24

SIC 38 INSTRUMENTS AND RELATED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Drafters	74	0.93	8.90	46.94
All Other Engineering Technicians and Technologists	81	1.02	3.64	10.20
Life Scientists	2	0.03	N.A.	N.A.
Chemical Technicians and Technologists, Except Health	8	0.10	10.46	8.16
Systems Analysts	32	0.40	3.95	16.33
Computer Programmers	54	0.68	7.24	28.57
All Other Health Professionals, Paraprofessionals and Technical Workers	23	0.29	N.A.	N.A.
Technical Writers	18	0.23	8.61	16.33
All Other Professional, Paraprofessional and Technical Workers	89	1.12	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	194	2.45	-	-
First Line Supervisors and Manager/Supervisors- Sales and Related Occupations	28	0.35	5.98	14.29
Sales Engineers	30	0.38	23.52	12.24
Sales Representatives, Scientific and Related Products and Services, Except Retail	107	1.35	4.19	26.53
Sales Representatives, Except Scientific and Related Products Or Service and Retail	22	0.28	16.07	16.33
All Other Sales and Related Workers	7	0.09	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1,073	13.56	-	-
First Line Supervisors and Manager/Supervisors- Clerical and Administrative Support Occupations	48	0.61	7.13	32.65
Adjustment Clerks	9	0.11	13.15	10.20
Secretaries	139	1.76	3.44	61.22
Receptionists and Information Clerks	9	0.11	12.67	8.16
Typists	23	0.29	11.34	16.33
Personnel Clerks	10	0.13	5.48	16.33

SIC 38 INSTRUMENTS AND RELATED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Order Clerks	53	0.67	9.82	24.49
Procurement Clerks	26	0.33	5.70	18.37
Bookkeeping, Accounting and Auditing Clerks	71	0.90	9.17	53.06
Payroll and timekeeping Clerks	21	0.27	7.22	28.57
Billing, Cost and Rate Clerks	14	0.18	10.35	14.29
General Office Clerks	57	0.72	14.69	38.78
Computer Operators	26	0.33	18.96	14.29
Data Entry Keyers, Except Composing	36	0.45	4.56	10.20
All Other Office Machine Operators	33	0.42	N.A.	N.A.
Switchboard Operators	21	0.27	7.38	28.57
Production, Planning, and Expediting Clerks	95	1.20	6.28	38.78
Stock Clerks-Stockroom, Warehouse Or Storage Yard	153	1.93	2.06	51.02
Traffic, Shipping and Receiving Clerks	97	1.23	4.37	63.27
All Other Material Recording, Scheduling and Distributing Workers	7	0.09	N.A.	N.A.
All Other Clerical and Administrative Support Workers	125	1.58	N.A.	N.A.
SERVICE OCCUPATIONS	103	1.30	-	-
First Line Supervisors and Manager/Supervisors-Service	5	0.06	10.95	6.12
Guards and Watch Guards	21	0.27	9.16	6.12
Food and Beverage Preparation and Service Occupations	2	0.03	N.A.	N.A.
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	74	0.93	5.67	34.69
All Other Cleaners and Building Service Workers	1	0.01	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	4,763	60.20	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	7	0.09	13.55	10.20
First Line Supervisors and Manager/ Supervisors-Production, and Operating Workers	211	2.67	4.52	63.27

SIC 38 INSTRUMENTS AND RELATED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	7	0.09	N.A.	N.A.
Precision Inspectors, Testers and Graders	316	3.99	5.02	32.65
Production Inspectors, Testers Graders, Sorters, Samplers and Weighers	154	1.95	16.88	34.69
Machinery Maintenance Mechanics	10	0.13	42.90	6.12
Maintenance Repairers, General Utility	101	1.28	2.62	26.53
All Other Mechanics, Installers and Repairers	7	0.09	N.A.	N.A.
Electricians	24	0.30	4.93	8.16
All Other Construction and Extractive Workers	34	0.43	N.A.	N.A.
Tool and Die Makers	81	1.02	1.95	12.24
Machinists	87	1.10	9.30	28.57
All Other Precision Metal Workers	32	0.40	N.A.	N.A.
All Other Precision Woodworkers	8	0.10	N.A.	N.A.
Precision Optical Goods Workers	102	1.29	7.81	14.29
All Other Precision Workers	41	0.52	N.A.	N.A.
Drilling and Boring Machine Tool Setters and Set-Up Operators, Metal and Plastic	71	0.90	4.39	10.20
Grinding, Lapping, and Buffing Machine Tool Setters and Set-Up Operators, Metal and Plastic	23	0.29	14.94	10.20
Machine Tool Cutting Operators and Tenders, Metal and Plastic	113	1.43	2.53	10.20
Punching Machine Setters and Set-Up Operators, Metal and Plastic	17	0.21	7.89	8.16
Machine Forming Operators and Tenders Metal and Plastic	73	0.92	4.88	10.20
Combination Machine Tool Operators and Tenders, Metal and Plastic	28	0.35	16.41	10.20
All Other Metal and Plastic Machine Setters and Set-Up Operators	146	1.85	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	6	0.08	N.A.	N.A.
Coating, Painting, and Spraying Machine Setters and Set-Up Operators	13	0.16	3.44	6.12

SIC 38 INSTRUMENTS AND RELATED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Coating, Painting, and Spraying Machine Operators and Tenders	41	0.52	22.10	12.24
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	22	0.28	20.43	10.20
Packaging and Filling Machine Operators and Tenders	19	0.24	12.00	8.16
All Other Machine Setters and Set-Up Operators	19	0.24	N.A.	N.A.
All Other Machine Operators and Tenders	288	3.64	N.A.	N.A.
Electromechanical Equipment Assemblers-Precision	915	11.56	4.26	16.33
Electrical and Electronic Equipment Assemblers-Precision	443	5.60	11.34	18.37
All Other Precision Assemblers	53	0.67	N.A.	N.A.
Electrical and Electronic Assemblers	455	5.75	20.73	26.53
Welders and Cutters	13	0.16	11.92	10.20
Solderers and Brazers	79	1.00	26.66	6.12
Painting, Coating, and Decorating Workers, Hand	32	0.40	35.13	10.20
Grinding and Polishing Workers, Hand	36	0.45	3.73	10.20
Assemblers and Fabricators, Except Machine, Electrical, Electronic and Precision	371	4.69	27.25	28.57
All Other Hand Workers	73	0.92	N.A.	N.A.
Plant and System Occupations	1	0.01	N.A.	N.A.
Truck Drivers, Light-Include Delivery and Route Workers	11	0.14	17.01	12.24
All Other Transportation and Related Workers	9	0.11	N.A.	N.A.
All Other Material Moving Equipment Operators	1	0.01	N.A.	N.A.
Machine Feeders and Offbearers	65	0.82	36.45	8.16
Freight, Stock, and Material Movers, Hand	30	0.38	19.29	12.24
Hand Packers and Packagers	30	0.38	10.06	14.29
All Other Helpers, Laborers, and Material Movers, Hand	45	0.57	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 38)

RANK	OES CODE	OCCUPATIONAL TITLE	APRIL 1986 ESTIMATED EMPLOYMENT
1	93111	Electromechanical Equipment Assemblers-Precision	915
2	93905	Electrical and Electronic Assemblers	455
3	93114	Electrical and Electronic Equipment Assemblers-Precision	443
4	93956	Assemblers and Fabricators-Except, Machine, Electrical, Electronic and Precision	371
5	83002	Precision Inspectors, Testers, and Graders	316
6	22126	Electrical and Electronic Engineers	214
7	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	211
8	22505	Electrical and Electronic Technicians and Technologists	157
9	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	154
10	58023	Stock Clerks-Stockroom, Warehouse or Storage Yard	153

THE SIX MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	77.6
2	58028	Traffic, Shipping and Receiving Clerks	63.3
	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	63.3
4	13002	Financial Managers	61.2
	15014	Industrial Production Managers	61.2
	55100	Secretaries	61.2

SUMMARY

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING

(SIC 20 - 23, 26 - 31)

There were 36,265 wage and salary workers employed in the Nondurable Goods Manufacturing sector during the occupational survey period of the second quarter of 1986. The largest major occupational group was Production, Construction, Operating, Maintenance, and Material Handling with 24,957 workers. More than two out of every three workers in Nondurable Goods manufacturing are classified in this group. This was followed by the Clerical and Administrative Support group with 4,311 workers (11.9 percent) and the Managerial group with 2,422 workers (6.7 percent).

THE TWENTY OCCUPATIONS IN NONDURABLE GOODS MANUFACTURING EMPLOYING THE LARGEST NUMBER OF WORKERS
LISTED BY ORDER OF RANK

RANK	OES CODE	OCCUPATIONAL TITLE	ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
1	98902	Hand Packers and Packagers	1,451	4.0
2	92717	Sewing Machine Operators, Garment	1,240	3.4
3	81008	First Line Supervisors, and Manager/ Supervisors-Production and Operating Workers	982	2.7
4	92723	Shoe Sewing Machine Operators and Tenders	980	2.7
5	83005	Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	951	2.6
6	92705	Textile Machine Operators and Tenders-Winding, Twisting, Knitting, Weaving, and Cutting	848	2.3
7	19005	General Managers and Top Executives	792	2.2
8	92974	Packaging and Filling Machine Operators and Tenders	791	2.2
9	98700	Freight, Stock, and Material Movers, Hand	724	2.0
10	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	675	1.9
11	91905	Plastic Molding and Casting Machine Operators and Tenders	609	1.7
12	92512	Offset Lithographic Press Setters and Set-Up Operators	604	1.7
13	85132	Maintenance Repairers, General Utility	549	1.5
14	58028	Traffic, Shipping, and Receiving Clerks	507	1.4
15	89511	Shoe and Leather Workers and Repairers-Precision	474	1.3
16	98502	Machine Feeders and Offbearers	468	1.3
17	92543	Printing Press Machine Operators and Tenders	459	1.3
18	55100	Secretaries	441	1.2
19	93926	Cutters and Trimmers, Hand	418	1.2
20	55338	Bookkeeping, Accounting and Auditing Clerks	413	1.1

NEW HAMPSHIRE
STAFFING PATTERNS
NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
TOTAL ALL OCCUPATION		36,265	100.0
MANAGERS AND ADMINISTRATORS	10000-19999	2,422	6.7
Financial Managers	13002	191	0.5
Personnel, Training, And Labor Relations Managers	13005	102	0.3
Purchasing Managers	13008	81	0.2
Marketing, Advertising, And Public Relations	13011	336	0.9
Administrative Services Managers	13014	33	0.1
English, Mathematics & Natural Sciences Managers	13017	141	0.4
Industrial Production Managers	15014	395	1.1
General Managers And Top Executives	19005	792	2.2
All Other Managers And Administrators	19999	351	1.0
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	20000-39999	2,381	6.6
Accounts And Auditors	21114	147	0.4
All Other Financial Specialists	21199	48	0.1
Purchasing Agents, Except Farm Products	21308	106	0.3
Personnel, Training, And Labor Relations Specialists	25111	43	0.1
Cost Estimators	21902	90	0.2
All Other Management Support Workers	21999	99	0.3
Chemical Engineers	22114	77	0.2
Electrical And Electronics Engineers	22126	29	0.1
Industrial Engineers, Except Safety	22128	51	0.1
Mechanical Engineers	22135	154	0.4
All Other Engineers	22199	59	0.2

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Electrical And Electronic Engineering Technicians And Technologists	22505	29	0.1
Mechanical Engineering Technicians & Techologists	22511	19	0.1
Drafters	22514	35	0.1
All Other Engineering And Technologists	22599	50	0.1
Chemists	24105	72	0.2
All Other Physical Scientists	24199	8	*
Chemical Technicians And Technologists, Except Health	24505	116	0.3
All Other Physical And Life Science Technicians And Technologists	24599	16	*
Systems Analysts, Electronic Data Processing	25102	49	0.1
Computer Programmers	25105	77	0.2
Computer Programmer Aides	25108	46	0.1
Health Practioners, Technologists, Technicians, And Related Health Occupations	32000	17	*
Writers And Editors	34002	242	0.7
Technical Writers	34005	63	0.2
Reporters And Correspondents	34011	200	0.6
Photographers	34023	83	0.2
Artists And Related Workers	34035	179	0.5
Designers	34038	127	0.4
All Other Professional, Paraprofessional, And Technical Workers	39999	50	0.1
SALES OCCUPATIONS	40000-49999	1,537	4.2
First Line Supervisors And Manager/Supervisors-Sales And Related Occupations	41002	252	0.7
Sales Agents, Advertising	43023	208	0.6
Sales Engineers	49002	22	0.1
Sales Representative, Scientific and Related Products And Services	49005	116	0.3

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Other Sales Representatives	49008	719	1.9
Salespersons, Retail	49011	72	0.2
Cashiers	49023	32	0.1
News & Street Vendors, Telephone Solicitors, Door-To-Door Sales Workers And Other Related Workers	49026	36	0.1
All Other Sales And Related Workers	49999	78	0.2
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	50000-59999	4,311	11.9
First Line Supervisors And Manager/Supervisors-Clerical And Administrative Support Occupations	51002	305	0.8
Adjustment Clerks	53123	206	0.6
Advertising Clerks	53908	84	0.2
Proofreaders And Copy Markers	53911	119	0.3
Secretaries	55100	441	1.2
Receptionists And Information Clerks	55305	116	0.3
Typists	55308	100	0.3
Typists, Word Processor	55311	42	0.1
Personnel Clerks	55314	52	0.1
File Clerks	55321	23	0.1
Order Clerks	55323	219	0.6
Procurement Clerks	55326	28	0.1
Statistical Clerks	55328	10	*
Bookkeeping, Accounting & Auditing Clerks	55338	413	1.1
Payroll And Timekeeping Clerks	55341	140	0.4
Billing, Cost And Rate Clerks	55344	109	0.3
General Office Clerks	55347	387	1.1
Billing, Posting, And Calculating Machine Operators	56002	27	0.1
Computer Operators	56011	64	0.2
Data Entry Keyers	56017	159	0.4
Data Keyers, Composing	56021	67	0.2
All Other Office Machine Operators	56099	51	0.1

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Switchboard Operators	57102	73	0.2
Mail Clerks, Except Mail Machine Operators And Post Service	57302	36	0.1
Messengers	57311	15	*
Production, Planning, And Expediting Clerks	58008	218	0.6
Marking Clerks	58021	12	*
Stock Clerks-Stockroom, Warehouse Or Storage Yard	58023	147	0.4
Traffic, Shipping, And Receiving Clerks	58028	507	1.4
All Other Material Recording, Scheduling, And Distributing Workers	58099	96	0.3
All Other Clerical And Administrative Support Workers	59999	45	0.1
SERVICE OCCUPATIONS	60000-69999	628	1.7
First Line Supervisors And Manager/Supervisors-Service	61000	136	0.4
Guards And Watch Guards	63047	105	0.3
Food Beverage Preparation And Service Occupations	65000	2	*
Janitors And Cleaners	67005	346	0.9
All Other Cleaning And Building Service Workers, Except Private Households	67099	15	*
All Other Service Workers	69999	24	0.1
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	70000-79999	29	0.1
Log Handling Equipment, Operators	73008	10	*
All Other Timber Cutting & Related Logging Workers	73099	7	*
All Other Agricultural, Forestry, Fishing, And Related Workers	79999	12	*

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	80000-98999	24,957	68.8
First Line Supervisors And Manager/Supervisors-Mechanics, Installers And Repairers	81002	178	0.5
First Line Supervisors And Manager/Supervisors-Construction Trades And Extractive Workers	81005	11	*
First Line Supervisors, And Manager/Supervisors-Production And Operating Workers	81008	982	2.7
First Line Supervisors And Manager/Supervisors-Transportation And Material Moving Machine And Vehicle Occupations	81011	80	0.2
First Line Supervisors And Manager/Supervisors-Helpers, Laborers, And Material Movers, Hand	81017	102	0.3
All Other First Line Supervisors And Manager/Supervisors	81099	70	0.2
Precision Inspectors, Testers, And Graders	83002	185	0.5
Production Inspectors, Testers, Graders, Sorters, Samplers, And Weighers	83005	951	2.6
Machinery Maintenance Mechanics	85110	145	0.4
Machinery Maintenance Mechanics-Textile Machines	85112	148	0.4
Machinery Maintenance Mechanics-Sewing Machines	85113	38	0.1
Machinery Maintenance Mechanics-Water Or Power Generation Plant	85118	42	0.1
All Other Machinery Maintenance Mechanics	85119	36	0.1
Millwrights	85123	129	0.4
Machinery Maintenance Workers	85128	106	0.3

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Maintenance Repairers, General Utility	85132	549	1.5
Bus And Truck Mechanics, And Diesel Engine Specialists	85311	28	0.1
Heating, Air Conditioning, And Refrigeration Mechanics And Installers	85902	18	0.1
Precision Instrument Repairers	85905	30	0.1
Coin And Vending Machine Servicers And Repairers	85947	22	0.1
Menders	85956	94	0.3
All Other Mechanics, Installers And Repairers	85999	47	0.1
Carpenters	87102	42	0.1
Electricians	87202	172	0.5
Painters And Paperhangers	87402	16	*
Plumbers And Pipefitters	87502	102	0.3
All Other Construction Trades Workers	87899	2	*
All Other Construction & Extractive Workers, Except Helpers	87999	28	0.1
Tool And Die Makers	89102	61	0.2
Machinists	89108	252	0.7
Tool Grinders, Filers, Sharpeners, And Other Precision Grinders	89111	13	*
Sheet Metal Workers	89132	16	*
All Other Precision Metal Workers	89199	5	*
Fabric And Apparel Patternmakers, And Layout Workers	89502	31	0.1
Custom Tailors And Sewer	89505	11	*
Shoe And Leather Workers And Repairers-Precision	89511	474	1.3
Pressers, Delicate Fabrics	89517	18	0.1
Precision Dyers	89521	17	*
All Other Precision Textile, Apparel, And Furnishings Workers	89599	42	0.1
Precision Compositors, Typesetters, And Arrangers	89702	66	0.2
Job Printers	89705	43	0.1
Precision Lithography And Photoengraving Workers	89708	190	0.5

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All Other Precision Printing Workers	89799	190	0.5
Slaughterers And Butchers	89802	33	0.1
Bakers, Manufacturing	89805	17	*
All Other Precision Food And Tobacco Workers	89899	24	0.1
Precision Patternmakers, Model Makers, Layout Workers And Cutters	89908	22	0.1
Precision Detail Design Decorators And Painters	89911	35	0.1
All Other Precision Workers	89999	54	0.1
Punching Machine Setters And Set-Up Operators, Metal and Plastic	91302	37	0.1
Press And Press Brake Machine Setters And Set-Up Operators, Metal And Plastic	91305	116	0.3
Extruding And Drawing Machine Setters And Set-Up Operators	91311	50	0.1
Rolling Machine Setters And Set-Up Operators, Metal & Plastic	91314	22	0.1
Machine Forming Operators And Tenders, Metal And Plastic	91321	175	0.5
Numerical Control Machine Tool Operators And Tenders	91502	16	*
Combination Machine Tool Setters And Set-Up Operators, Metal And Plastic	91505	50	0.1
Combination Machine Tool Operators And Tenders, Metal And Plastic	91508	11	*
Plastic Molding And Casting Machine Setters And Set-Up Operators	91902	196	0.5
Plastic Molding And Casting Machine Operators And Tenders	91905	609	1.7
Heating Equipment Setters And Set-Up Operators	91928	20	0.1
All Other Metal And Plastic Machine Setters And Set-Up Operators	92197	15	*

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
All Other Metal And Plastic Machine Operators And Tenders	92198	5	*
Printing Press Machine Setters And Set-Up Operators	92510	48	*
Offset Lithographic Press Setters And Set-Up Operators	92512	604	1.7
Letterpress Setters And Set-Up Operators	92515	36	0.1
Photoengraving And Lithographing Photographers	92521	50	0.1
Specialty Materials, Printing Machine Setters And Set-Up Operators	92522	98	0.3
Screen Printing Machine Setters And Set-Up Operators	92524	43	0.1
Bindery Machine Setters And Set-Up Operators	92525	100	0.3
All Other Printing Related Setters And Set-Up Operators	92529	46	0.1
Typesetting And Composing Machine Operators And Tenders	92541	226	0.6
Printing Press Machine Operators And Tenders	92543	459	1.3
Bindery Machine Operators	92546	167	0.5
All Other Printing, Binding, And Related Machine Operators And Tenders	92549	129	0.4
Textile Machine Setters And Set-Up Operators	92702	103	0.3
Textile Machine Operators And Tenders-Winding, Twisting, Knitting, Weaving, And Cutting	92705	848	2.3
Extruding And Forming Machine Operators And Tenders, Synthetic Or Glass Fibers	92708	45	0.1
Textile Draw-Out Machine Operators And Tenders	92711	27	0.1
Textile Bleaching And Dyeing Machine Operators And Tenders	92714	135	0.4
Sewing Machine Operators, Garment	92717	1,240	3.4
Sewing Machine Operators, Non-Garment	92721	69	0.2

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Shoe Sewing Machine Operators And Tenders	92723	980	2.7
Laundry And Dry Cleaning Machine Operators And Tenders	92726	15	*
Pressing Machine Operators And Tenders	92728	112	0.3
Paper Goods Machine Setters And Set-Up Operators	92914	249	0.7
Cooking Machine Operators And Tenders, Food And Tabacco	92917	42	0.1
Roasting, Baking, And Drying Machine Operators And Tenders, Food And Tobacco	92921	26	0.1
Boiler Operators And Tenders	92926	78	0.2
Dairy Processing Equipment Operators, Including Setters	92932	38	0.1
Chemical Equipment Controllers And Operators	92935	93	0.3
Chemical Equipment Tenders	92938	35	0.1
Cutting And Slicing Machine Setters And Set-Up Operators	92941	93	0.3
Cutting And Slicing Machine Operators And Tenders	92944	318	0.9
Coating, Painting, And Spraying Machine Setters And Set-Up Operators	92951	36	0.1
Coating, Painting, And Spraying Machine Operators And Tenders	92953	218	0.6
Cementing And Gluing Machine Operators And Tenders	92956	294	0.8
Cleaning, Washing, And Pickling Equipment Operators And Tenders	92958	53	0.1
Separating, Filtering, Clarifying, Precipitating, And Still Machine Operators And Tenders	92962	26	0.1
Crushing, Grinding, Mixing, And Blending Machine Operators And Tenders	92965	368	1.0
Extruding, Forming, Pressing, And Compacting Machine Setters And Set-Up Operators	92968	55	0.2

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Extruding, Forming, Pressing, And Compacting Machine Operators And Tenders	92971	360	1.0
Packaging And Filling Machine Operators And Tenders	92974	791	2.2
All Other Machine Setters And Set-Up Operators	92997	130	0.4
All Other Machine Operators And Tenders	92998	427	1.2
Welders And Cutters	93914	44	0.1
Pressers, Hand	93921	23	0.1
Sewers, Hand	93923	237	0.7
Cutters And Trimmers, Hand	93926	418	1.2
Portable Machine Cutters	93928	41	0.1
Cannery Workers	93935	15	*
Meat, Poultry, and Fish Cutters And Trimmers, Hand	93938	291	0.8
Molders And Casters, Hand	93944	182	0.5
Assemblers And Fabricators-Except Machine, Electrical, Electronic And Precision	93956	675	1.9
All Other Hand Workers	93999	1,383	3.8
Water And Liquid Waste Treatment Plant And System Operators	95002	30	0.1
Power Distributors And Dispatchers	95028	14	*
Stationary Engineers	95032	10	*
All Other Plant And System Operators	95099	37	0.1
Truck Drivers, Heavy Or Tractor Trailer	97102	247	0.7
Truck Drivers, Light-Include Delivery And Route Workers	97105	143	0.4
Driver/Sales Workers	97117	234	0.6
All Other Transportation And Related Workers	97899	43	0.1
Industrial Truck And Tractor Operators	97947	399	1.1
Conveyor Operators And Tenders	97951	52	0.1
All Other Material Moving Equipment Operators	97999	112	0.3
Mechanic And Repairer Helpers	98102	58	0.2

STAFFING PATTERNS

NONDURABLE GOODS MANUFACTURING

OCCUPATIONAL TITLE	OES CODE	SECOND QUARTER 1986 ESTIMATED EMPLOYMENT	PERCENT OF TOTAL
Construction Trades And Extractive Worker Helpers	98300	11	*
Machine Feeders And Offbearers	98502	468	1.3
Freight, Stock, And Material Movers, Hand	98700	724	2.0
Hand Packers And Packagers	98902	1,451	4.0
Vehicle Washers And Equipment Cleaners	98905	22	0.1
All Other Helpers, Laborers, And Material Movers, Hand	98999	1,173	3.2

* LESS THAN 0.05 PERCENT

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
FOOD AND KINDRED PRODUCTS

(SIC 20)

This major group includes establishments manufacturing or processing foods and beverages for human consumption and certain related products, such as manufactured ice, chewing gum, vegetable and animal fats and oils, and prepared feeds for animals and fowls.

During the survey month of June 1986 there were 3,007 wage and salary workers in the food and kindred products manufacturing group. This was a gain of 158 workers or (5.5 percent) from a similar survey conducted three years earlier.

Our sample consisted of 54 units representing an employment of 3,022. Usable responses were received from 39 units or 72.2 percent of the units sampled. The reported employment was 2,441 or (80.8 percent) of the employment in the sample.

SIC 20 FOOD AND KINDRED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	3,007	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	146	4.86	-	-
Financial Managers	11	0.36	4.07	12.82
Personnel, Training, and Labor Relations Managers	6	0.20	7.45	12.82
Purchasing Managers	12	0.40	12.08	15.38
Marketing, Advertising, and Public Relations Managers	17	0.56	9.11	15.38
Industrial Production Managers	26	0.86	13.21	25.64
General Managers and Top Executives	55	1.82	19.61	56.41
All Other Managers and Administrators	19	0.63	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	80	2.66	-	-
Accountants and Auditors	15	0.50	25.65	15.38
All Other Financial Specialists	8	0.26	N.A.	N.A.
Personnel, Training, and Labor Relations Specialists	5	0.17	6.32	10.26
All Other Management Support Workers	8	0.26	N.A.	N.A.
All Other Engineers	18	0.60	N.A.	N.A.
All Other Engineering and Related Technicians	1	0.03	N.A.	N.A.
All Other Physical Scientists	1	0.03	N.A.	N.A.
All Other Life Scientists	2	0.06	N.A.	N.A.
All Other Physical and Life Science Technicians	10	0.33	N.A.	N.A.
All Other Health Professionals and Technicians	1	0.03	N.A.	N.A.
All Other Professional, Paraprofessional and Technical Workers	11	0.36	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	187	6.22	-	-
First Line Supervisors and Manager/ Supervisors, Sales and Related Occupations	37	1.23	4.52	28.20
Sales Representatives, Except Scientific and Related Products Or Services and Retail	91	3.03	4.99	46.

SIC 20 FOOD AND KINDRED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Salespersons, Retail	26	0.86	40.43	12.82
Cashiers	29	0.96	25.32	10.25
All Other Sales and Related Workers	4	0.13	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	329	10.94	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	37	1.23	7.74	43.59
Secretaries	28	0.93	10.89	30.77
Bookkeepers, Accountants and Auditing Clerks	42	1.39	25.27	43.59
General Office Clerks	38	1.26	5.83	41.03
Data Entry Keyers	24	0.79	1.86	17.95
All Other Office Machine Operators	16	0.53	N.A.	N.A.
Switchboard Operators	5	0.17	8.94	10.25
Production, Planning and Expediting Clerks	21	0.70	3.01	12.82
Stock Clerks-Stockroom, Warehouse Or Storage Yard	19	0.63	12.12	15.38
Traffic, Shipping and Receiving Clerks	44	1.46	9.85	30.77
All Other Material Recording, Scheduling & Distributing Workers	4	0.13	N.A.	N.A.
All Other Clerical and Administrative Support Workers	51	1.70	N.A.	N.A.
SERVICE OCCUPATIONS	69	2.29	-	-
Janitors and Cleaners	29	0.96	6.98	30.77
All Other Service Workers	40	1.33	N.A.	N.A.
AGRICULTURAL, FORESTRY, FISHING, AND RELATED WORKERS	7	0.2	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	2,189	72.80	-	-

SIC 20 FOOD AND KINDRED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	108	3.58	1.76	28.20
First Line Supervisors and Manager/Supervisors- Transportation and Material Moving Machine and Vehicle Occupations	19	0.63	2.35	10.25
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	21	0.70	N.A.	N.A.
All Other Inspectors, Testers and Related Occupations	9	0.30	N.A.	N.A.
Maintenance Repairers, General Utility	44	1.46	9.09	38.46
Bus and Truck Mechanics, and Diesel Engine Specialists	23	0.76	11.59	20.51
Coin and Vending Machine Servicers and Repairers	22	0.73	7.87	10.26
All Other Mechanics, Installers and Repairers	69	2.29	N.A.	N.A.
All Other Construction and Extractive workers, Except Helpers	46	1.53	N.A.	N.A.
All Other Precision Metal Workers	35	1.16	N.A.	N.A.
Bakers, Manufacturing	17	0.56	14.53	10.26
Food Batchmakers	5	0.17	30.98	7.69
All Other Precision Food Workers	52	1.73	N.A.	N.A.
Cooking Machine Operators and Tenders, Food	42	1.39	35.65	12.82
Dairy Processing Equipment Operators, Including Setters	38	1.26	1.44	10.26
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	43	1.42	29.39	17.95
Packaging and Filling Machine Operators and Tenders	404	13.38	4.88	48.72
All Other Machine Setters and Set-Up Operators	34	1.13	N.A.	N.A.
All Other Machine Operators and Tenders	61	2.03	N.A.	N.A.
Meat, Poultry, and Fish Cutters and Trimmers-Hand	291	9.64	39.20	15.38
All Other Hand Workers	16	0.53	N.A.	N.A.
All Other Plant and System Operators	14	0.47	N.A.	N.A.

SIC 20 FOOD AND KINDRED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Truck Drivers, Heavy Or Tractor Trailer	111	3.68	6.67	33.33
Truck Drivers, Light-Include Delivery and Route Workers	32	1.06	15.75	10.26
Driver/Sales Workers	161	5.33	8.51	25.64
All Other Transportation Workers	16	0.53	N.A.	N.A.
Industrial Truck and Tractor Operators	36	1.19	1.76	15.38
All Other Material Moving Equipment Operators	21	0.70	N.A.	N.A.
Freight, Stock and Material Movers, Hand	119	3.94	4.63	30.77
All Other Freight, Stock, and Material Movers, Hand	13	0.43	N.A.	N.A.
Hand Packers and Packagers	234	7.75	10.79	23.07
All Other Helpers, Laborers, and Material Movers, Hand	33	1.10	N.A.	N.A.

THE ELEVEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 20)

RANK	OES CODE	OCCUPATIONAL TITLE	JUNE 1986 ESTIMATED EMPLOYMENT
1	92974	Packaging & Filling Machine Operators and Tenders	404
2	93938	Meat, Poultry, & Fish Cutters and Trimmers, Hand	291
3	98902	Hand Packers and Packagers	234
4	97117	Drivers/Sales Workers	161
5	98700	Freight, Stock, & Material Movers, Hand	119
6	97102	Truck Drivers, Heavy Or Tractor Trailer	111
7	81008	First Line Supervisors & Manager/Supervisors-Production and Operating Workers	108
8	49008	Sales Representatives, Except Scientific and Related Products Or Services and Retail	91
9	19005	General Managers and Top Executives	55
10	58028	Traffic, Shipping & Receiving Clerks	44
	85132	Maintenance Repairers, General Utility	44

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers & Top Executives	56.4
2	92974	Packaging & Filling Machine Operators and Tenders	48.7
3	49008	Sales Representatives, Except Scientific and Related Products Or Services and Retail	46.2
4	51002	First Line Supervisors & Manager/Supervisors-Clerical & Administrative Support Workers	43.6
	55338	Bookkeeping, Accounting & Auditing Clerks	43.6

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
TEXTILE MILL PRODUCTS

(SIC 22)

This major group includes establishments engaged in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine and cordage; (2) manufacturing broad woven fabric, narrow woven fabric, knot fabric, and carpets and rugs from yarn; (3) dyeing and finishing fiber, yarn, fabric and knot apparel; (4) coating, waterproofing, or otherwise treating fabric; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven fabrics and miscellaneous textiles.

During the survey month of April 1986 there were 3,471 wage and salary workers employed in the textile mill products industry, a loss of 391 jobs or (10.1 percent) over the three year period since the previous survey of April 1983.

Our sample consisted of 42 units representing an employment of 3,820. Usable responses were received from 34 units or (81 percent) of the units sampled. The reported employment was 3,289 or (86.1 percent) of the employment in the sample.

SIC 22 TEXTILE MILL PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	3,471	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	171	4.93	-	-
Financial Managers	13	0.37	4.21	26.47
Personnel, Training, and Labor Relations Managers	8	0.23	8.84	17.65
Marketing, Advertising, and Public Relations Managers	11	0.31	12.86	17.65
Industrial Production Managers	58	1.66	3.82	58.82
General Managers and Top Executives	54	1.54	4.06	70.59
All Other Managers Administrators	27	0.78	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	100	2.88	-	-
All Other Financial Specialists	16	0.46	N.A.	N.A.
Purchasing Agents, Except Farm Products	5	0.14	10.95	8.82
All Other Management Support Workers	30	0.86	N.A.	N.A.
All Other Engineers	11	0.32	N.A.	N.A.
All Other Engineering Technicians and Technologists	4	0.12	N.A.	N.A.
Chemists	6	0.17	9.13	17.65
All Other Physical and Life Science Technicians and Technologists	9	0.26	N.A.	N.A.
All Other Health Diagnosing and Treating Practitioners	5	0.14	N.A.	N.A.
Designers	5	0.14	15.49	11.76
All Other Professional, Paraprofessional and Technical Workers	9	0.26	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	65	1.87	-	-
Sales Representatives, Except Scientific and Related Products Or services and Retail	43	1.23	1.27	23.53
All Other Sales and Related Workers	22	0.63	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	295	8.50	-	-

SIC 22 TEXTILE MILL PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	19	0.54	3.33	26.47
Adjustment Clerks	20	0.57	4.74	14.70
Secretaries	30	0.86	1.83	50.00
Personnel Clerks	5	0.14	10.95	11.76
Order Clerks	11	0.31	6.43	14.70
Bookkeeping, Accounting and Auditing Clerks	27	0.77	4.06	50.00
General Office Clerks	40	1.14	1.12	41.18
Computer Operators	9	0.26	7.86	11.76
All Other Office Machine Operators	6	0.17	N.A.	N.A.
Switchboard Operators	8	0.23	6.85	20.59
Production, Planning and Expediting Clerks	26	0.74	4.87	23.53
Traffic, Shipping, and Receiving Clerks	49	1.40	1.58	55.88
All Other Material Recording, Scheduling and Distributing Workers	6	0.17	N.A.	N.A.
All Other Clerical and Administrative Support Workers	39	1.12	N.A.	N.A.
SERVICE OCCUPATIONS				
Guards and Watch Guards	63	1.82	9.22	17.65
Janitors and Cleaners	27	0.77	10.67	41.18
All Other Service Workers	16	0.46	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	2,777	80.00	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	27	0.77	4.22	26.47
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	151	4.32	2.67	61.76
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	51	1.47	N.A.	N.A.
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	214	6.12	6.41	52.94

SIC 22 TEXTILE MILL PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Inspectors, Testers, and Related Occupations	17	0.49	N.A.	N.A.
Machinery Maintenance Mechanics, Textile Machines	145	4.15	3.69	52.94
Machinery Maintenance Mechanics, Sewing Machines	9	0.26	9.94	23.53
All Other Machine Maintenance Mechanics	10	0.29	N.A.	N.A.
Machinery Maintenance Workers	28	0.80	3.39	23.53
Maintenance Repairers, General Utility	70	2.00	2.56	47.06
All Other Mechanics, Installers, and Repairers	79	2.28	N.A.	N.A.
Electricians	28	0.80	2.77	29.41
All Other Construction and Extractive Workers, Except Helpers	15	0.43	N.A.	N.A.
Machinists	16	0.46	3.42	11.76
All Other Precision Metal Workers	3	0.09	N.A.	N.A.
All Other Precision Textile and Related Workers	60	1.73	N.A.	N.A.
All Other Precision Workers	7	0.20	N.A.	N.A.
All Other Metal and Plastic Machine Setters and Set-Up Operators	15	0.43	N.A.	N.A.
All Other Printing Related Setters and Set-Up Operators	8	0.23	N.A.	N.A.
Textile Machine Setters and Set-Up Operators	92	2.63	9.17	23.53
Textile Machine Operators and Tenders-Winding, Twisting, Knitting, Weaving and Cutting	722	20.65	4.71	76.47
Textile Draw-Out Machine Operators and Tenders	27	0.77	4.83	11.76
Textile Bleaching and Dyeing Machine Operators and Tenders	132	3.78	1.02	23.53
Sewing Machine Operators, Garment	161	4.61	28.60	11.76
Sewing Machine Operators, Non-Garment	34	0.97	27.26	20.59
Pressing Machine Operators and Tenders-Textile, Garment, and Related Materials	14	0.40	13.17	8.82
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	28	0.80	3.57	11.76

SIC 22 TEXTILE MILL PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Machine Setters and Set-Up Operators	160	4.61	N.A.	N.A.
All Other Machine Operators and Tenders	52	1.50	N.A.	N.A.
Cutters and Trimmers, Hand	12	0.34	25.69	11.76
Assemblers and Fabricators-Except Machine, Electrical, Electronic and Precision	14	0.40	5.53	8.82
All Other Hand Workers	25	0.72	N.A.	N.A.
Plant and System Occupations	4	0.12	N.A.	N.A.
All Other Motor Vehicle Operators	14	0.40	N.A.	N.A.
Industrial Truck and Tractor Operators	56	1.60	4.37	23.53
All Other Material Moving Equipment Operators	6	0.17	N.A.	N.A.
Machine Feeders and Offbearers	63	1.80	15.05	11.76
Freight, Stock, and Material Movers, Hand	95	2.72	3.99	20.59
All Other Helpers, Laborers, and Material Movers, Hand	113	3.26	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 22)

RANK	OES CODE	OCCUPATIONAL TITLE	APRIL 1986 ESTIMATED EMPLOYMENT
1	92705	Textile Machine Operators & Tenders-Winding, Twisting, Knitting, Weaving, and Cutting	722
2	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	214
3	92717	Sewing Machine Operators, Garment	161
4	81008	First Line Supervisors & Managers/ Supervisors-Production and Operating Workers	151
5	85112	Machinery Maintenance Mechanics-Textile Machines	145
6	92714	Textile Bleaching & Dyeing Machine Operators & Tenders	132
7	98700	Freight, Stock, & Material Movers, Hand	95
8	92702	Textile Machine Setters & Set-Up Operators	92
9	85132	Maintenance Repairers, General Utility	70
10	98502	Machine Feeders and Offbearers	63

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	92705	Textile Machine Operators & Tenders-Winding, Twisting, Knitting, Weaving, & Cutting	76.5
2	19005	General Managers & Top Executives	70.6
3	81008	First Line Supervisors & Manager/Supervisors-Production and Operating Workers	61.8
4	15014	Industrial Production Managers	58.8
5	58028	Traffic, Shipping & Receiving Clerks	55.9

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
APPAREL AND OTHER FINISHED PRODUCTS
MADE FROM FABRICS AND SIMILAR MATERIALS

(SIC 23)

This major group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating by cutting and sewing purchased woven or knit textile fabrics and related materials such as leather, rubberized fabrics, plastics and furs.

There were 2,413 wage and salary workers employed in the apparel industry during the survey month of April 1986. This represents a drop of 387 workers, or (13.8 percent) from a similar survey during the same survey period in 1983.

Our sample consisted of 45 units representing an employment of 2,477. Usable responses were received from 33 units or (73.3 percent) of the units sampled. The reported employment was 1,782 or (71.9 percent) of the employment in the sample.

SIC 23 APPAREL
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	2,413	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	131	5.43	-	-
Financial Managers	5	0.21	12.65	12.12
Personnel, Training, and Labor Relations Managers	5	0.21	6.32	12.12
Industrial Production Managers	27	1.12	16.31	42.42
General Managers and Top Executives	61	2.52	15.28	60.60
All Other Managers and Administrators	33	0.95	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	27	1.12	-	-
All Other Financial Specialists	1	0.04	N.A.	N.A.
All Other Management Support Workers	6	0.25	N.A.	N.A.
All Other Engineering and Related Technicians and Technologists	2	0.08	N.A.	N.A.
Designers	18	0.75	15.81	24.24
SALES AND RELATED OCCUPATIONS	96	3.98	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	11	0.46	17.95	12.12
Sales Representatives, Except Scientific and Related Products Or Services and Retail	27	1.12	15.36	18.18
Salespersons, Retail	32	1.32	30.15	21.21
All Other Sales and Related Workers	26	1.08	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	229	9.49	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	15	0.62	6.99	9.09
Secretaries	20	0.83	21.97	27.27
Order Clerks	27	1.12	26.50	18.18

SIC 23 APPAREL
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Bookkeeping, Accounting, and Auditing Clerks	25	1.03	23.39	36.36
Payroll and Timekeeping Clerks	26	1.08	10.74	30.30
Billing, Cost and Rate Clerks	7	0.29	4.52	15.15
General Office Clerks	26	1.08	32.32	27.27
All Other Office Machine Operators	12	0.50	N.A.	N.A.
Stock Clerks-Stockroom, Warehouse Or Storage Yard	26	1.08	28.26	15.15
Traffic, Shipping and Receiving Clerks	17	0.70	7.20	24.24
All Other Clerical and Admistrative Support Workers	28	1.16	N.A.	N.A.
SERVICE OCCUPATIONS	25	1.04	-	-
Janitors and Cleaners	19	0.79	2.35	33.33
All Other Service and Related Workers	6	0.25	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	1,905	78.95	-	-
First Line Supervisors and Manager/Supervisors-Production, and Operating Workers	63	2.61	7.95	54.54
All Other First Line Supervisors, and Manager/Supervisors,- Production, Construction, Maintenance and Related	17	0.70	N.A.	N.A.
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	81	3.35	3.12	27.27
All Other Inspectors, Testers, and Related Occupations	3	0.12	N.A.	N.A.
Machinery Maintenance Mechanics, Sewing Machines	18	0.75	13.15	30.30
Maintenance Repairers, General Utility	11	0.46	2.87	12.12
All Other Mechanics, Installers and Repairers	22	0.91	N.A.	N.A.
All Other Precision Textile, Apparel, and Furnishings Workers	41	1.70	N.A.	N.A.

SIC 23 APPAREL
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Printing Related Setters and Set-Up Operators	22	0.91	N.A.	N.A.
Textile Machine Setters and Set-Up Operators	11	0.46	7.04	12.12
Textile Machine Operators and Tenders-Winding, Twisting, Knitting, Weaving and Cutting	87	3.60	11.28	9.09
Sewing Machine Operators, Garment	969	40.11	3.60	72.72
Pressing Machine Operators and Tenders-Textile, Garment, and Related Materials	91	3.77	3.89	24.24
All Other Machine Operators and Tenders	56	2.32	N.A.	N.A.
Hand Cutters and Trimmers	31	1.28	2.04	18.18
Portable Machine Cutters	38	1.57	14.37	21.21
All Other Hand Workers	103	4.27	N.A.	N.A.
All Other Motor Vehicle Operators	9	0.37	N.A.	N.A.
All Other Transportation and Material Moving Equipment Operators	5	0.21	N.A.	N.A.
All Other Material Moving Equipment Operators	5	0.21	N.A.	N.A.
Freight, Stock, and Material Movers, Hand	64	2.65	6.13	36.36
All Other Freight, Stock, and Material Movers, Hand	6	0.25	N.A.	N.A.
Hand Packers and Packagers	80	3.31	8.34	27.27
All Other Helpers, Laborers, and Material Movers, Hand	72	2.98	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 23)

RANK	OES CODE	OCCUPATIONAL TITLE	April 1986 ESTIMATED EMPLOYMENT
1	92717	Sewing Machine Operators, Garment	969
2	92728	Pressing Machine Operators and Tenders-Textile, Garment and Related Materials	91
3	92705	Textile Machine Operators and Tenders-Winding, Twisting, Knitting, Weaving, and Cutting	87
4	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	81
5	98902	Hand Packers and Packagers	80
6	98700	Freight, Stock and Material Movers, Hand	64
7	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	63
8	19005	General Managers and Top Executives	61
9	93928	Portable Machine Cutters	38
10	49011	Salespersons, Retail	32

THE SIX MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	92717	Sewing Machine Operators, Garment	72.7
2	19005	General Managers and Top Executives	60.6
3	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	54.5
4	15014	Industrial Production Managers	42.4
5	55338	Bookkeeping, Accounting and Auditing Clerks	36.4
	98700	Freight, Stock, and Material Movers, Hand	36.4

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
PAPER AND ALLIED PRODUCTS

(SIC 26)

This major group includes establishments primarily engaged in the manufacturing of pulps from wood and other cellulose fibers, and from rags; the manufacturing of paper and paperboard into converted products such as paper coated off the paper machine, paper bags, paper boxes, and envelopes.

There were 5,497 wage and salary workers in the paper and allied products industries during the survey month of April 1986, which represents an increase of 177 jobs or (3.3 percent) from the estimated employment during the same month of 1983.

Our sample consisted of 40 units representing an employment of 5,521. Usable responses were received from 23 units or (57.5 percent) of the units sampled. The reported employment was 4,606 or (83.4 percent) of the employment in the sample.

SIC 26 PAPER AND ALLIED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	5,497	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	369	6.71	-	-
Financial Managers	40	0.73	4.81	34.78
Personnel, Training, and Labor Relations Managers	17	0.31	12.89	21.74
Purchasing Managers	16	0.29	9.88	21.74
Marketing, Advertising, and Public Relations Managers	37	0.67	16.62	30.43
Administrative Services Managers	5	0.09	26.08	17.39
Engineering, Mathematical, and Natural Sciences Managers	39	0.71	5.44	26.09
Industrial Production Managers	43	0.78	14.20	47.83
General Managers and Top Executives	83	1.51	18.61	82.61
All Other Managers and Administrators	89	1.62	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS	412	7.49	-	-
Accountants and Auditors	29	0.53	12.62	34.78
All Other Financial Specialists	31	0.57	N.A.	N.A.
Purchasing Agents, Except Farm Products	25	0.46	11.10	34.78
Personnel, Training, and Labor Relations Specialists	7	0.13	28.57	13.04
Cost Estimators	19	0.35	18.61	17.39
All Other Management Support Workers	46	0.84	N.A.	N.A.
All Other Engineers	68	1.24	N.A.	N.A.
All Other Engineering Technicians and Technologists	39	0.71	N.A.	N.A.
Chemists	26	0.47	6.88	13.04
All Other Physical Scientists	8	0.15	N.A.	N.A.
Chemical Technicians and Technologists, Except Health	45	0.82	10.93	17.39
Systems Analysts	29	0.53	6.17	13.04
Computer Programmers	9	0.16	33.33	17.39
Health Practitioners, Technologists, Technicians, and Related Health Occupations.	10	0.18	8.94	17.39
All Other Professional, Paraprofessional and Technical Workers	21	0.38	N.A.	N.A.

SIC 26 PAPER AND ALLIED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
SALES AND RELATED OCCUPATIONS	248	4.51	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	41	0.75	21.37	30.43
Sales Representatives, Scientific and Related Products and Services-Except Retail	14	0.26	39.64	13.04
Sales Representatives, Except Scientific and Related Products Or Services and Retail	175	3.19	22.02	52.17
All Other Sales and Related Workers	18	0.33	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	529	9.62	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	67	1.22	14.65	39.13
Adjustment Clerks	27	0.49	30.16	26.09
Secretaries	65	1.18	11.46	56.52
Personnel Clerks	7	0.13	9.04	21.74
Bookkeeping, Accounting and Auditing Clerks	41	0.75	14.59	47.83
Payroll and Timekeeping Clerks	19	0.35	7.06	17.39
Billing, Cost and Rate Clerks	13	0.24	2.43	21.74
General Office Clerks	54	0.98	16.20	52.17
Billing, Posting and Calculating Machine Operators	5	0.09	26.83	17.39
Computer Operators	15	0.27	16.87	21.74
Data Entry Keyers	11	0.20	18.18	17.39
All Other Office Machine Operators	17	0.31	N.A.	N.A.
Switchboard Operators	9	0.16	27.89	21.74
Production, Planning and Expediting Clerks	41	0.75	14.37	34.78
Stock Clerks-Stockroom, Warehouse Or Storage Yard	16	0.29	-9.48	13.04
Traffic, Shipping, and Receiving Clerks	47	0.86	17.72	43.48
All Other Material Recording Scheduling and Distributing Workers	18	0.33	N.A.	N.A.

SIC 26 PAPER AND ALLIED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Clerical and Administrative Support Workers	57	1.04	N.A.	N.A.
SERVICE OCCUPATIONS	115	2.09	-	-
Guards and Watch Guards	38	0.69	6.00	26.09
Janitors and Cleaners	66	1.20	3.92	52.17
All Other Service Workers	11	0.20	N.A.	N.A.
AGRICULTURAL, FORESTRY, FISHING, AND RELATED WORKERS	21	0.38	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE AND MATERIAL HANDLING OCCUPATIONS	3,803	69.18	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	46	0.84	4.66	17.39
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	170	3.10	6.80	60.87
All Other First Line Supervisors-Production, Construction, Maintenance and Related	21	0.38	N.A.	N.A.
Precision Inspectors, Testers and Graders	28	0.51	22.62	13.04
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	363	6.62	49.68	39.13
Machinery Maintenance Mechanics, Water Or Power Generation Plant	38	0.69	28.59	26.09
All Other Machinery Maintenance Mechanics	16	0.29	N.A.	N.A.
Millwrights	93	1.70	0.96	17.39
Machinery Maintenance Workers	26	0.47	23.52	17.39
Maintenance Repairers, General Utility	146	2.66	19.03	60.87
All Other Mechanics, Installers and Repairers	41	0.71	N.A.	N.A.
Electricians	70	1.28	3.06	26.09

SIC 26 PAPER AND ALLIED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Construction and Extractive Workers	104	1.89	N.A.	N.A.
Machinists	78	1.42	6.59	21.74
All Other Precision Metal Workers	7	0.13	N.A.	N.A.
All Other Metal and Plastic Machine Setters and Set-Up Operators	5	0.09	N.A.	N.A.
Printing Press Machine Setters and Set-Up Operators	44	0.80	49.66	17.39
All Other Printing Related Setters and Set-Up Operators	108	1.96	N.A.	N.A.
Printing Press Machine Operators and Tenders	62	1.13	34.80	21.74
All Other Printing, Binding, and Related Machine Operators and Tenders	48	0.87	N.A.	N.A.
Paper Goods Machine Setters and Set-Up Operators	149	2.72	15.64	43.48
Boiler Operators and Tenders Low Pressure	50	0.91	14.87	17.39
Cutting and Slicing Machine Operators and Tenders	202	3.68	22.52	56.52
Cutting and Slicing Machine Setters and Set-Up Operators	68	1.24	8.77	30.43
Cementing and Gluing Machine Operators and Tenders	97	1.77	16.69	26.09
Cleaning, Washing and Pickling Equipment Operators and Tenders	34	0.62	15.95	13.04
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	185	3.37	9.37	43.48
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	64	1.17	40.50	17.39
Packaging and Filling Machine Operators and Tenders	85	1.55	9.57	30.43
All Other Machine Setters and Set-Up Operators	7	0.13	N.A.	N.A.
All Other Machine Operators and Tenders	352	6.40	N.A.	N.A.
All Other Hand Workers	82	1.49	N.A.	N.A.
Water and Liquid Waste Treatment Plant and System Operators	18	0.33	6.80	13.04
All Other Plant and System Operators	41	0.75	N.A.	N.A.

SIC 26 PAPER AND ALLIED PRODUCTS
Reference Date: April 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Truck Drivers, Heavy Or Tractor Trailer	59	1.08	7.90	39.13
Truck Drivers, Light-Include Delivery and Route Workers	27	0.49	21.66	34.78
All Other Transportation and Related Workers	17	0.31	N.A.	N.A.
Industrial Truck and Tractor Operators	150	2.73	5.00	43.48
Conveyor Operators and Tenders	21	0.38	36.79	13.04
All Other Material Moving Equipment Operators	28	0.51	N.A.	N.A.
Machine Feeders and Offbearers	51	0.93	8.55	17.39
Freight, Stock, and Material Movers, Hand	59	1.08	29.65	34.78
Hand Packers and Packagers	71	1.29	17.57	30.43
All Other Helpers, Laborers, and Material Movers, Hand	372	6.77	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 26)

RANK	OES CODE	OCCUPATIONAL TITLE	APRIL 1986 ESTIMATED EMPLOYMENT
1	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	363
2	92944	Cutting and Slicing Machine Operators and Tenders	202
3	92965	Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	185
4	49008	Sales Representatives, Except Scientific, and Related Products or Services and Retail	175
5	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	170
6	97947	Industrial Truck and Tractor Operators	150
7	92914	Paper Goods Machine Setters and Set-Up Operators	149
8	85132	Maintenance Repairers, General Utility	146
9	92956	Cementing and Gluing Machine Operators and Tenders	97
10	85123	Millwrights	93

THE SEVEN MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executive	82.6
2	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	60.9
	85132	Maintenance Repairers, General Utility	60.9
4	55100	Secretaries	56.5
5	67005	Janitors and Cleaners	52.2
	55347	General Office Clerks	52.2
	49008	Sales Representatives, Except Scientific, and Related Products Or Services and Retail	52.2

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
PRINTING, PUBLISHING AND ALLIED INDUSTRIES

(SIC 27)

This major group included establishments engaged in printing by one or more of the common processes, such as letterpress, lithography, gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding, typesetting, engraving, photoengraving, and electrotyping. This major group also includes establishments engaged in publishing newspapers, books and periodicals, regardless of whether or not they do their own printing.

There were 7,253 wage and salary workers in the printing and publishing industries during the survey month of May 1986. This represents an increase of 441 workers or a (6.5 percent) growth in employment from the same survey period three years earlier.

Our sample consisted of 122 units representing an employment of 5,891. Usable responses were received from 88 units or (72.1 percent) of the units sampled. The reported employment was 4,389 or (74.5 percent) of the employment in the sample.

SIC 27 PRINTING, PUBLISHING AND ALLIED INDUSTRIES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	7,253	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	693	9.55	-	-
Financial Managers	36	0.50	13.38	18.18
Personnel, Training, and Labor Relations Managers	22	0.30	13.48	11.36
Purchasing Managers	10	0.14	23.45	13.04
Marketing, Advertising, and Public Relations Managers	120	1.65	15.34	35.23
Engineering, Mathematical and Natural Sciences Managers	8	0.11	37.08	4.55
Industrial Production Managers	73	1.01	14.31	29.55
General Managers and Top Executives	273	3.76	13.25	73.86
All Other Managers and Administrators	151	2.08	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	1,014	13.98	-	-
Accountants and Auditors	19	0.26	16.89	9.09
Purchasing Agents-Except Wholesale, Retail and Farm Products	16	0.22	21.83	7.95
Personnel, Training, and Labor Relations Specialists	4	0.06	43.30	3.41
Cost Estimators	30	0.41	23.45	15.91
All Other Management Support Workers	7	0.10	N.A.	N.A.
All Other Engineers	13	0.18	N.A.	N.A.
All Other Engineering and Related Technicians and Technologists	2	0.03	N.A.	N.A.
Systems Analysts	5	0.07	17.89	3.41
Computer Programmers	31	0.43	25.60	12.50
Computer Programmer Aides	11	0.15	8.13	3.41
Librarians, Professional	4	0.06	36.23	3.41
Writers and Editors	242	3.34	11.18	28.41
Reporters and Correspondents	200	2.76	11.12	18.18
Photographers	83	1.14	10.40	18.18
Artists and Related Workers	179	2.47	23.31	30.68
Designers, Except Interior Designers	84	1.16	29.61	17.05
All Other Professional, Paraprofessional and Technical Workers	84	1.16	N.A.	N.A.

SIC 27 PRINTING, PUBLISHING AND ALLIED INDUSTRIES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
SALES AND RELATED OCCUPATIONS	558	7.69	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	71	0.98	14.44	21.59
Sales Agents, Advertising	208	2.87	12.19	20.45
Sales Representatives, Scientific and Related Products and Services-Except Retail	22	0.30	19.66	5.68
Sales Representatives, Except Scientific and Related Products Or Services and Retail	190	2.62	19.21	23.86
Cashiers	5	0.07	37.95	3.41
News and Street Vendors, Telephone Solicitors, Door-To-Door Sales Workers, and Other Related Workers	36	0.50	31.48	5.68
All Other Sales and Related Workers	26	0.36	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1,554	21.43	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	89	1.23	14.23	32.95
Adjustment Clerks	72	0.99	28.65	12.50
Advertising Clerks	84	1.16	14.13	14.77
Proofreaders and Copy Markers	119	1.64	12.94	32.95
Secretaries	135	1.86	9.99	46.59
Receptionists and Information Clerks	88	1.21	17.55	34.09
Typists	47	0.65	34.47	11.36
Typists, Word Processor	35	0.48	37.72	7.95
Personnel Clerks	12	0.17	26.22	5.68
File Clerks	4	0.06	43.30	3.41
Order Clerks	77	1.06	13.21	13.64
Procurement Clerks	6	0.08	27.39	5.68
Bookkeeping, Accounting and Auditing Clerks	149	2.05	9.30	54.55
Payroll and Timekeeping Clerks	11	0.15	20.73	9.09
Billing, Cost and Rate Clerks	25	0.34	8.76	7.95
General Office Clerks	121	1.67	20.69	26.14
Billing, Posting, and Calculating Machine Operators	8	0.11	37.29	3.41

SIC 27 PRINTING, PUBLISHING AND ALLIED INDUSTRIES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Computer Operators	9	0.12	21.66	5.68
Data Entry Keyers, Except Composing	43	0.59	26.98	11.36
Data Keyers, Composing	67	0.92	17.87	9.09
All Other Office Machine Operators	27	0.37	N.A.	N.A.
Switchboard Operators	16	0.22	17.68	11.36
Mail Clerks, Except Mail Machine Operators and Postal Service	35	0.48	33.83	6.82
Messengers	15	0.21	34.12	9.09
Production, Planning and Expediting Clerks	46	0.63	26.55	12.50
Stock Clerks, Stockroom, Warehouse Or Storage Yard	19	0.26	23.12	9.09
Traffic, Shipping and Receiving Clerks	129	1.78	29.74	20.45
All Other Material Recording, Scheduling and Distributing Workers	44	0.61	N.A.	N.A.
All Other Clerical and Administrative Support Workers	22	0.30	N.A.	N.A.
SERVICE OCCUPATIONS	88	1.21	-	-
First Line Supervisors and Manager/Supervisors-Service	9	0.12	19.88	5.68
Janitors and Cleaners	73	1.01	15.70	27.27
All Other Cleaners and Building Service Workers	6	0.08	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE AND MATERIAL HANDLING OCCUPATIONS	3,346	46.13	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers, and Repairers	20	0.28	18.57	9.09
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	149	2.05	15.69	27.27
First Line Supervisors and Manager/Supervisors-Transportation and Material Moving Machine and Vehicle Occupations	16	0.22	18.33	5.68
First Line Supervisors and Manager/Supervisors-Helpers, Laborers and Material Movers, Hand	11	0.15	23.00	5.68

SIC 27 PRINTING, PUBLISHING AND ALLIED INDUSTRIES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other First Line Supervisors, and Manager/ Supervisors-Production, Construction, Maintenance and Related	3	0.04	N.A.	N.A.
Production Inspectors, Testers Graders, Sorters, Samplers, and Weighers	6	0.08	26.88	3.41
Machinery Maintenance Mechanics	28	0.39	12.88	45.45
Machinery Maintenance Workers	9	0.12	32.58	3.41
Maintenance Repairers, General Utility	25	0.34	18.15	9.09
All Other Mechanics, Installers and Repairers	2	0.03	N.A.	N.A.
All Other Construction and Extractive Workers	34	0.47	N.A.	N.A.
All Other Precision Metal Workers	6	0.08	N.A.	N.A.
Precision Compositors, Typesetters and Arrangers	66	0.91	28.08	14.77
Job Printers	43	0.59	41.74	9.09
Precision Lithography and Photoengraving Workers	190	2.62	22.90	20.45
All Other Precision Printing Workers	11	0.15	N.A.	N.A.
Precision Detail Design Decorators and Painters	35	0.48	45.60	6.82
All Other Precision Workers	5	0.07	N.A.	N.A.
Offset Lithographic Press Setters and Set-Up Operators	604	8.33	35.15	30.68
Letter Press Setters and Set-Up Operators	36	0.50	49.91	3.41
All Other Printing Press Setters and Set-Up Operators	6	0.08	N.A.	N.A.
Photoengraving and Lithographing Photographers	40	0.55	23.76	15.91
Bindery Machine Setters and Set-Up Operators	100	1.38	19.21	17.05
All Other Printing Related Setters and Set-Up Operators	33	0.45	N.A.	N.A.
Typesetting and Composing Machine Operators and Tenders	226	3.12	11.05	32.95
Printing Press Machine Operators and Tenders	395	5.45	44.36	19.32
Bindery Machine Operators	167	2.30	17.81	19.32

SIC 27 PRINTING, PUBLISHING AND ALLIED INDUSTRIES
Reference Date: May 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Printing, Binding, and Related Machine Operators and Tenders	73	1.01	N.A.	N.A.
Cutting and Slicing Machine Operators and Tenders	33	0.46	26.26	10.23
All Other Machine Setters and Set-Up Operators	100	1.38	N.A.	N.A.
All Other Machine Operators and Tenders	28	0.39	N.A.	N.A.
All Other Hand Workers	128	1.76	N.A.	N.A.
Truck Drivers, Heavy Or Tractor Trailer	18	0.25	18.09	4.55
Truck Drivers, Light-Include Delivery and Route Workers	38	0.52	23.58	14.77
Driver/Sales Workers	73	1.01	23.94	6.82
Industrial Truck and Tractor Operators	29	0.40	11.99	4.55
Machine Feeders and Offbearers	73	1.01	34.87	7.95
Freight, Stock, and Material Movers, Hand	161	2.22	29.69	10.23
Hand Packers and Packagers	250	3.45	33.79	12.50
All Other Helpers, Laborers, and Material Movers, Hand	76	1.05	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 27)

RANK	OES CODE	OCCUPATIONAL TITLE	MAY 1986 ESTIMATED EMPLOYMENT
1	92512	Offset Lithographic Press Setters and Set-Up Operators	604
2	92543	Printing Press Machine Operators and Tenders	395
3	19005	General Managers and Top Executives	273
4	98902	Hand Packers and Packagers	250
5	34002	Writers and Editors	242
6	92541	Typesetting and Composing Machine Operators and Tenders	226
7	43023	Sales Agents, Advertising	208
8	34011	Reporters and Correspondents	200
9	89708	Precision Lithography and Photoengraving Workers	190
	49008	Sales Representatives, Except Scientific, and Related Products Or Services and Retail	190

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	73.9
2	55338	Bookkeeping, Accounting and Auditing Clerks	54.5
3	55100	Secretaries	46.6
4	13011	Marketing, Advertising, and Public Relations Managers	35.2
5	55305	Receptionists and Information Clerks	34.1

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
CHEMICALS AND ALLIED PRODUCTS

(SIC 28)

This major group includes establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes. Establishments classified in this major group manufacture three general classes of products: (1) basic chemicals such as acids, alkalies, salts, and organic chemicals; (2) chemical products to be used in further manufacture such as synthetic fibers, plastics materials, dry colors and pigments; (3) finished chemical products to be used for ultimate consumption such as drugs, cosmetics, and soaps; or to be used as materials or supplies in other industries such as paints, fertilizers, and explosives.

There were 1,087 wage and salary workers in the chemicals and allied products industries during the survey month of June 1986. This represents an increase of 308 workers or (39.5 percent) from a similar survey conducted in 1983.

Our sample consisted of 24 units representing an employment of 1,012. Usable responses were received from 20 units or (83.3 percent) of the units sampled. The reported employment was 892 or (88.1 percent) of the employment in the sample.

SIC 28 CHEMICALS AND ALLIED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	1,087	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	138	12.70	-	-
Financial Managers	11	1.00	26.03	25.00
Marketing, Advertising, and Public Relations Managers	26	2.37	21.89	50.00
General Managers and Top Executives	50	4.56	9.70	80.00
All Other Managers and Administrators	51	4.69	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	140	12.88	-	-
All Other Financial Specialists	9	0.83	N.A.	N.A.
Purchasing Agents-Except Wholesale, Retail, and Farm Products	4	0.36	13.69	15.00
All Other Management Support Workers	6	0.55	N.A.	N.A.
Chemical Engineers	10	0.91	3.16	25.00
Mechanical Engineers	17	1.55	13.28	15.00
All Other Engineers	6	0.55	N.A.	N.A.
All Other Engineering and Related Technicians and Technologists	13	1.19	N.A.	N.A.
Chemists	26	2.37	11.01	45.00
Chemical Technicians and Technologists, Except Health	44	4.01	2.78	45.00
All Other Mathematical Scientists	1	0.09	N.A.	N.A.
All Other Professional, Paraprofessional and Technical Workers	4	0.36	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	72	6.62	-	-
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	8	0.73	6.85	20.00
Sales Representatives, Except Scientific and Related Products Or Services and Retail	38	3.46	46.16	25.00
All Other Sales and Related Workers	26	2.37	N.A.	N.A.

SIC 28 CHEMICALS AND ALLIED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	172	15.82	-	-
First Line Supervisors and Manager/Supervisors-Clerical and Administrative Support Occupations	9	0.82	25.09	25.00
Adjustment Clerks	10	0.91	6.33	15.00
Secretaries	35	3.19	7.56	50.00
Typists	4	0.36	13.69	20.00
Order Clerks	5	0.46	10.95	20.00
Bookkeeping, Accounting, and Auditing Clerks	20	1.82	22.91	35.00
General Office Clerks	17	1.55	26.24	30.00
All Other Office Machine Operators	6	0.55	N.A.	N.A.
Production, Planning and Expediting Clerks	11	1.00	4.07	20.00
Traffic, Shipping and Receiving Clerks	31	2.83	28.94	45.00
All Other Material Recording, Scheduling and Distributing Workers	10	0.91	N.A.	N.A.
All Other Clerical and Administrative Support Workers	14	1.29	N.A.	N.A.
SERVICE OCCUPATIONS	15	1.38	-	-
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	10	0.91	5.48	30.00
All Other Cleaners and Building Service Workers	1	0.09	N.A.	N.A.
All Other Service Workers	4	0.36	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE AND MATERIAL HANDLING OCCUPATIONS	550	50.60	-	-
First Line Supervisors and Manager/Supervisors- Production and Operating Workers	39	3.56	8.31	60.00
All Other First Line Supervisors and Manager/Supervisors-Production, Construction, Maintenance and Related	12	1.09	N.A.	N.A.

SIC 28 CHEMICALS AND ALLIED PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	17	1.55	4.16	25.00
All Other Inspectors, Testers and Related Occupations	6	0.55	N.A.	N.A.
All Other Machinery Maintenance Mechanics	12	1.09	N.A.	N.A.
Maintenance Mechanics, General Utility	25	2.28	5.06	25.00
All Other Mechanics, Installers, and Repairers	15	1.38	N.A.	N.A.
All Other Construction Trades Workers	25	2.28	N.A.	N.A.
All Other Precision Metal Workers	20	1.84	N.A.	N.A.
Chemical Equipment Controllers and Operators	78	7.11	1.90	20.00
Chemical Equipment Tenders	11	1.00	43.41	15.00
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	57	5.20	9.70	50.00
Packaging and Filling Machine Operators and Tenders	70	6.38	16.19	30.00
All Other Machine Operators and Tenders	62	5.70	N.A.	N.A.
All Other Hand Workers	34	3.13	N.A.	N.A.
All Other Plant and System Operators	12	1.09	N.A.	N.A.
All Other Motor Vehicle Operators	11	1.00	N.A.	N.A.
All Other Transportation and Material Moving Equipment Operators	6	0.55	N.A.	N.A.
All Other Freight, Stock, and Material Movers, Hand	22	2.02	N.A.	N.A.
Hand Packers and Packagers	14	1.28	20.45	20.00
All Other Helpers, Laborers, and Material Movers, Hand	2	0.18	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 28)

RANK	OES CODE	OCCUPATIONAL TITLE	JUNE 1986 ESTIMATED EMPLOYMENT
1	92935	Chemical Equipment Controllers and Operators	78
2	92974	Packaging and Filling Machine Operators and Tenders	70
3	92965	Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	57
4	19005	General Managers and Top Executives	50
5	24505	Chemical Technicians and Technologists, Except Health	44
6	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	39
7	49008	Sales Representatives, Except Scientific, and Related Products Or Services and Retail	38
8	55100	Secretaries	35
9	58028	Traffic, Shipping and Receiving Clerks	31
	92708	Extruding and Forming Machine Operators and Tenders, Synthetic Or Glass Fibers	31

THE FIVE MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	80.0
2	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	60.0
3	13011	Marketing, Advertising, and Public Relations Managers	50.0
	55100	Secretaries	50.0
	92965	Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	50.0

OCCUPATIONAL EMPLOYMENT
NONDURABLE GOODS MANUFACTURING
RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS

(SIC 30)

This major group includes establishments manufacturing from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak, rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries. This group also includes establishments engaged in molding primary plastics for the trade, and manufacturing miscellaneous finished plastics products.

There were 8,796 wage and salary workers in the rubber and miscellaneous plastics products industries during the survey month of June 1986. This represents a drop of 332 workers or 3.6 percent from a similar survey conducted in 1983.

Our sample consisted of 49 units representing an employment of 8,866. Usable responses were received from 36 units or 73.5 percent of the units sampled. The reported employment was 6,667 or 75.2 percent of the employment in the sample.

SIC 30 RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
TOTAL	8,796	100.00	-	-
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	481	5.47	-	-
Financial Managers	49	0.56	28.63	38.89
Personnel, Training, and Labor Relations Managers	29	0.33	13.22	44.44
Purchasing Managers	21	0.24	32.16	30.56
Marketing, Advertising, and Public Relations Managers	21	0.24	34.54	27.78
Engineering, Mathematical, and Natural Sciences Managers	44	0.50	26.27	27.78
Industrial Production Managers	116	1.32	10.41	72.22
General Managers and Top Executives	138	1.57	17.70	77.78
All Other Managers and Administrators	63	0.72	N.A.	N.A.
PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL OCCUPATIONS	459	5.23	-	-
Accountants and Auditors	31	0.35	21.90	33.33
All Other Financial Specialists	3	0.03	N.A.	N.A.
Purchasing Agents, Except Wholesale, Retail and Farm Products	34	0.39	23.23	38.89
Personnel, Training and Labor Relations Specialists	11	0.12	25.39	19.44
Cost Estimators	23	0.26	32.51	22.22
All Other Management Support Workers	3	0.03	N.A.	N.A.
Chemical Engineers	39	0.44	27.83	25.00
Electrical and Electronic Engineers	24	0.27	10.87	16.67
Industrial Engineers, Except Safety	32	0.36	8.21	27.78
Mechanical Engineers	109	1.24	6.94	50.00
All Other Engineers	13	0.15	31.25	13.89
Electrical and Electronic Engineering Technicians and Technologists	26	0.29	17.37	11.11
Mechanical Engineering Technicians and Technologists	11	0.12	21.37	11.11
Drafters	22	0.25	18.01	27.78

SIC 30 RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Engineering Technicians and Technologists	8	0.09	N.A.	N.A.
Chemists	9	0.10	20.49	13.89
Chemical Technicians and Technologists, Except Health	19	0.22	20.92	13.89
All Other Science Technicians and Technologists	3	0.03	N.A.	N.A.
Systems Analysts	11	0.12	7.04	11.11
Computer Programmers	15	0.17	7.30	19.44
Computer Programmer Aides	7	0.08	10.10	11.11
All Other Health Professionals Paraprofessionals and Technicians	1	0.01	N.A.	N.A.
All Other Professionals, Paraprofessionals and Technicians	5	0.06	N.A.	N.A.
SALES AND RELATED OCCUPATIONS	162	1.84	-	-
First Line Supervisors, and Manager/Supervisors-Sales and Related Occupations	47	0.53	28.68	16.67
Sales Engineers	7	0.08	32.26	11.11
Sales Representatives, Scientific and Related Products and Services, Except Retail	44	0.50	40.93	8.33
All Other Sales and Related Workers	64	0.73	N.A.	N.A.
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	678	7.71	-	-
First Line Supervisors and Manager/Supervisors Clerical and Administrative Support Occupations	39	0.44	31.54	16.67
Adjustment Clerks	32	0.36	27.71	16.67
Secretaries	79	0.90	9.75	55.55
Receptionists and Information Clerks	8	0.09	41.65	16.67
Typists	17	0.19	26.04	13.89
Personnel Clerks	17	0.19	35.97	22.22
Order Clerks	20	0.23	35.28	13.89
Bookkeeping, Accounting and Auditing Clerks	56	0.64	16.30	38.89
Payroll and Timekeeping Clerks	38	0.43	17.16	38.89

SIC 30 RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
Billing, Cost and Rate Clerks	29	0.33	20.78	19.44
General Office Clerks	30	0.34	42.45	19.44
Computer Operators	10	0.11	10.49	16.67
Data Entry Keyers	35	0.40	30.36	30.56
Switchboard Operators	20	0.23	19.24	36.11
Production, Planning and Expediting Clerks	48	0.54	21.53	41.67
Stock Clerks, Stockroom, Warehouse Or Storage Yard	47	0.53	26.68	25.00
Traffic, Shipping and Receiving Clerks	132	1.50	13.17	66.67
All Other Material Recording, Scheduling, and Distributing Workers	13	0.15	N.A.	N.A.
All Other Clerical and Administrative Support Workers	8	0.09	N.A.	N.A.
SERVICE OCCUPATIONS	177	2.01	-	-
First Line Supervisors and Manager/Supervisors-Service	71	0.81	38.04	8.33
All Other Protective Service Workers	7	0.08	N.A.	N.A.
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	99	1.12	8.71	55.55
AGRICULTURAL, FORESTRY FISHING, AND RELATED WORKERS	1	0.01	N.A.	N.A.
PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE, AND MATERIAL HANDLING OCCUPATIONS	6,838	77.74	-	-
First Line Supervisors and Manager/Supervisors-Mechanics, Installers and Repairers	57	0.65	16.70	27.78
First Line Supervisors and Manager/Supervisors-Production and Operating Workers	250	2.84	10.42	69.44
First Line Supervisors and Manager/Supervisors-Transportation and Material Moving Machine and Vehicle Occupations	12	0.14	24.44	16.67
First Line Supervisors and Manager/ Supervisors-Helpers, Laborers and Material Movers, Hand	36	0.41	34.30	13.89

SIC 30 RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other First Line Supervisors and Manager/ Supervisors-Production, Construction, Maintenance and Related	4	0.05	N.A.	N.A.
Precision Inspectors, Testers, and Graders	120	1.36	7.14	25.00
Production Inspectors, Testers, Graders, Sorters, Samplers, and Weighers	238	2.70	10.42	47.22
Machinery Maintenance Mechanics	92	1.04	25.40	36.11
Millwrights	15	0.17	30.91	11.11
Machinery Maintenance Workers	26	0.29	23.86	16.67
Maintenance Repairers	203	2.30	11.51	55.55
Electricians	23	0.26	8.02	22.22
All Other Construction and Extractive Workers, Except Helpers	10	0.11	N.A.	N.A.
Tool and Die Makers	54	0.61	19.18	27.78
Machinists	108	1.23	15.27	47.22
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders	13	0.15	34.49	8.33
All Other Precision Workers	64	0.48	N.A.	N.A.
Punching Machine Setters and Set-Up Operators, Metal and Plastic	37	0.42	34.81	11.11
Press and Press Brake Machine Setters and Set-Up Operators, Metal and Plastic	116	1.32	49.11	11.11
Numerical Control Machine Tool Operators and Tenders, Metal and Plastic	16	0.18	36.60	8.33
Plastic Molding and Casting Machine Setters and Set-Up Operators	189	2.14	26.12	27.78
Plastic Molding and Casting Machine Operators and Tenders	593	6.73	23.58	27.78
All Other Metal and Plastic Machine Setters and Set-Up Operators	143	1.63	N.A.	N.A.
All Other Metal and Plastic Machine Operators and Tenders	191	2.17	N.A.	N.A.

SIC 30 RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
Reference Date: June 12, 1986

OCCUPATION	EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT	RELATIVE ERROR IN PERCENT	ESTABLISHMENTS REPORTING OCCUPATION IN PERCENT
All Other Printing, Binding, and Related Machine Operators and Tenders	34	0.39	N.A.	N.A.
Chemical Equipment Tenders	24	0.27	14.37	8.33
Cutting and Slicing Machine Operators and Tenders	59	0.67	5.97	13.89
Coating, Painting, and Spraying Machine Operators and Tenders	88	1.00	17.75	22.22
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	32	0.36	33.72	16.67
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	251	2.85	16.87	11.11
Extruding, Forming, Pressing, and Compacting Machine Setters and Set-Up Operators	49	0.56	4.65	8.33
Packaging and Filling Machine Operators and Tenders	207	2.35	38.31	16.67
All Other Machine Setters and Set-Up Operators	52	0.59	N.A.	N.A.
All Other Machine Operators and Tenders	135	1.53	N.A.	N.A.
Cutters and Trimmers, Hand	208	2.36	1.00	13.89
Molders and Casters, Hand	181	2.05	12.85	11.11
Assemblers and Fabricators, Except Machine, Electrical, Electronic, and Precision	371	4.21	28.54	33.33
All Other Hand Workers	1,095	12.45	N.A.	N.A.
Truck Drivers, Heavy Or Tractor Trailer	31	0.35	49.98	16.67
All Other Transportation and Related Workers	23	0.26	N.A.	N.A.
Industrial Truck and Tractor Operators	81	0.92	12.88	25.00
All Other Material Moving Equipment Operators	24	0.27	N.A.	N.A.
Mechanic and Repairer Helpers	11	0.12	17.01	8.33
Machine Feeders and Offbearers	244	2.77	15.88	16.67
Freight, Stock, and Material Movers, Hand	175	1.99	13.25	36.11
Hand Packers and Packagers	633	7.18	24.85	41.67
All Other Helpers, Laborers, and Material Movers, Hand	220	2.50	N.A.	N.A.

THE TEN OCCUPATIONS EMPLOYING THE LARGEST NUMBER OF WORKERS LISTED BY ORDER OF RANK (SIC 30)

RANK	OES CODE	OCCUPATIONAL TITLE	JUNE 1986 ESTIMATED EMPLOYMENT
1	98902	Hand Packers & Packagers	633
2	91905	Plastic Molding and Casting Machine Operators and Tenders	593
3	93956	Assemblers and Fabricators-Except Machine, Electrical, Electronic & Precision	371
4	92971	Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	251
5	81008	First Line Supervisors & Manager/Supervisors-Production and Operating Workers	250
6	98502	Machine Feeders and Offbearers	244
7	83005	Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers	238
8	93926	Hand Cutters and Trimmers	208
9	92974	Packaging and Filling Machine Operators and Tenders	207
10	85132	Maintenance Repairers, General Utility	203

THE SEVEN MOST FREQUENTLY REPORTED OCCUPATIONS LISTED BY ORDER OF RANK

CODE	OES CODE	OCCUPATIONAL TITLE	PERCENT OF FIRMS REPORTING
1	19005	General Managers and Top Executives	77.8
2	15014	Industrial Production Managers	72.2
3	81008	First Line Supervisors and Manager/Supervisors-Production and Operating Workers	69.4
4	58028	Traffic, Shipping and Receiving Clerks	66.7
5	55100	Secretaries	55.6
	67005	Janitors and Cleaners	55.6
	85132	Maintenance Repairers, General Utility	55.6

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "ALL OTHER" CATEGORY

OCCUPATIONAL TITLE	STANDARD INDUSTRIAL CLASSIFICATION													
	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Accountants and Auditors			X											
Adjustment Clerks	X			X						X				
Administrative Services Managers				X	X		X		X	X				X
Assemblers and Fabricator's, Except Machine, Electrical, Electronic and Precision			X			X	X	X						
Automotive Mechanics	X					X		X			X			
Billing, Cost and Rate Clerks								X		X				
Billing, Posting, and Calculating Machine Operators	X	X	X											
Boilermakers								X						
Boiler Operators and Tenders, Low Pressure								X	X					
Bookbinders							X							
Budget Analysts											X	X		
Bus and Truck Mechanics and Diesel Engine Specialists						X				X	X			
Cannery Workers	X													
Carpenters	X					X	X	X		X				X
Cementing and Gluing Machine Operators and Tenders		X			X				X					
Chemical Engineers						X				X				
Chemical Equipment Controllers and Operators						X								X
Chemical Plant and System Operators						X								
Chemical Technicians and Technologists, Except Health	X									X		X		
Chemists	X									X				
Choke Setters				X										
Civil Engineers, Including Traffic											X	X		
Cleaning, Washing, and Pickling Equipment Operators and Tenders	X							X	X	X		X		X
Coil Winders, Tapers, and Finishers													X	
Combination Machine Tool Operators and Tenders,Metal and Plastic									X	X				
Combination Machine Tool Setters and Set-Up Operators, Metal and Plastic									X	X	X			X
Compliance Officers and Enforcement Inspectors, Except Construction								X						
Computer Operators, Except Peripheral Equipment	X		X					X		X				
Computer Programmers				X	X			X			X			
Computer Programmer Aides	X	X			X	X								X
Concrete and Terrazzo Finishers										X				
Construction Trades and Extractive Worker Helpers				X		X					X			
Conveyor Operators and Tenders	X			X				X						
Cooling and Freezing Equipment Operators and Tenders	X													
Cost Estimators	X	X	X							X				

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "ALL OTHER" CATEGORY

OCCUPATIONAL TITLE	STANDARD INDUSTRIAL CLASSIFICATION													
	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Crane and Tower Operators						X					X	X		
Crushing, Grinding, Mixing, and Blending Machine Operators and Tenders	X										X	X	X	
Custom Tailors and Sewers			X											
Cutting and Slicing Operators and Tenders				X					X					
Data Entry Keyers, Except Composing			X	X	X			X		X				
Data Processing Equipment Repairers												X	X	
Designers, Except Interior Designers				X	X	X			X	X	X			X
Drafters							X	X						
Drilling and Boring Machine Tool Setters and Set-Up Operators, Metal and Plastic					X									
Duplicating Machine Operators							X							
Electrical and Electronic Engineering Technicians and Technologists						X		X		X	X			
Electrical and Electronic Engineers						X		X		X	X			
Electricians	X				X		X	X						
Electrolytic Plating and Coating Machine Operators and Tenders, Metal and Plastic											X	X	X	
Electrolytic Plating and Coating Machine Setters and Set-Up Operators, Metal and Plastic											X			X
Electric Motor, Transformer and Related Repairers													X	
Electronics Repairers, Commercial and Industrial Equipment													X	
Electronic Semiconductor Processors													X	X
Engineering, Mathematical and Natural Sciences Managers			X		X					X				
Extractive and Related Workers-Including Blasters									X		X			
Extruding and Drawing Machine Setters and Set-Up Operators, Metal and Plastic		X						X						
Extruding and Forming Machine Operators and Tenders, Synthetic or Glass Fibers		X		X				X						
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	X													
Extruding, Forming, Pressing, and Compacting Machine Setters and Set-Up Operators	X	X												
Fabric and Apparel Patternmakers, and Layout Workers				X		X			X	X	X			X
File Clerks						X								
First Line Supervisors and Manager/Supervisors-Agricultural, Forestry, Fishing and Related										X	X	X		
First Line Supervisors and Manager/Supervisors-Construction Trades and Extractive Workers		X	X			X		X		X		X		X
First Line Supervisors and Manager/Supervisors-Helpers, Laborers, and Material Movers-Hand			X		X									
First Line Supervisors and Manager/Supervisors-Mechanics, Installers, and Repairers		X												
First Line Supervisors and Manager/Supervisors-Production and Operating Workers		X												
First Line Supervisors and Manager/Supervisors-Sales and Related Occupations	X	X						X						
First Line Supervisors and Manager/Supervisors-Service		X	X			X		X						X
First Line Supervisors and Manager/Supervisors-Transportation														

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "ALL OTHER" CATEGORY

OCCUPATIONAL TITLE	STANDARD INDUSTRIAL CLASSIFICATION													
	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Food and Beverage Preparation and Service Occupations	X			X										X
Foresters and Conservation Scientists				X							X			
Forging Machine Setters and Set-Up Operators, Metal and Plastic								X						
Freight, Stock and Material Movers, Hand		X			X				X					
Furnace, Kiln, Oven, Drier, Or Kettle Operators and Tenders											X		X	
Furnace Operators and Tenders				X	X									
Furniture Finishers				X										
Glaziers				X										
Grader, Dozer, and Scraper Operators													X	
Grinding, Lapping, and Buffing Machine Tool Setters and Set-Up Operators, Metal and Plastic	X		X		X				X	X				
Guards and Watch Guards				X		X				X				
Hand Cutters and Trimmers							X							
Hand Engraving and Printing Workers				X									X	
Hand Grinding and Polishing Workers	X									X				
Hand Molders and Casters				X					X	X				
Hand Painting, Coating, and Decorating Workers			X											
Hand Sewers	X	X							X		X			
Health Practitioners, Technologists, Technicians, and Related Health Occupations											X			
Heaters, Metal and Plastic											X		X	
Heat Treating, Annealing and Tempering Machine Operators and Tenders, Metal and Plastic	X	X						X					X	
Heating, Air Conditioning and Refrigeration Mechanics									X		X	X	X	
Heating Equipment Setters and Set-Up Operators, Metal and Plastic		X	X	X					X	X	X			
Industrial Engineering Technicians and Technologists	X					X	X	X				X		
Industrial Engineers			X					X				X		X
Industrial Truck and Tractor Operators								X						
Insulation Workers							X							
Interviewing Clerks, Except Personnel and Social Welfare		X	X											
Laundry and Drycleaning Machine Operators and Tenders, Except Pressing								X					X	
Lawyers							X							
Library Assistants and Bookmobile Drivers	X												X	X
Life Scientists						X								
Log Handling Equipment Operators													X	X
Machine Assemblers														

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "ALL OTHER" CATEGORY

	STANDARD INDUSTRIAL CLASSIFICATION													
OCCUPATIONAL TITLE	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Machine Builders and Other Precision Machine Assemblers													X	X
Machine Feeders and Offbearers	X		X		X			X				X	X	
Machine Forming Operators and Tenders, Metal and Plastic					X									
Machine Tool Cutting Operators and Tenders, Metal and Plastic				X										
Machinery Maintenance Mechanics	X				X			X						
Machinery Maintenance Workers					X									
Machinists	X			X			X	X						
Mail Clerks, Except Mail Machine Operators and Postal Service								X						
Mail Machine Operators, Preparation and Handling							X							
Marking Clerks			X											
Mathematical Scientists								X				X	X	
Mechanical Engineering Technicians and Technologists								X		X				
Mechanical Engineers	X			X		X	X							
Mechanic and Repairer Helpers		X			X		X	X		X		X		
Medical Appliance Makers														X
Metal Fabricators, Structural Metal Products											X			
Metal Molding, Coremaking, and Casting Machine Setters and Set-Up Operators												X	X	X
Metallurgists and Metallurgical, Ceramic, and Materials Engineers											X		X	
Milling and Planing Machine Setters and Set-Up Operators, Metal and Plastic											X			X
Millwrights		X		X				X		X	X			
Mobile Heavy Equipment Mechanics, Except Engines										X				
Operating Engineers				X										
Operations and Systems Researchers and Analysts, Except Computer												X	X	
Opticians, Dispensing and Measuring														X
Order Clerks-Materials, Merchandise and Service	X					X				X				
Packaging and Filling Machine Operators and Tenders		X					X				X	X		
Painters and Paperhangers, Construction and Maintenance	X	X				X		X		X			X	
Painting, Coating, and Spraying Machine Operators and Tenders						X				X			X	
Painting, Coating, and Spraying Machine Setters and Set-Up Operators		X		X	X			X	X	X				
Paper Goods Machine Setters and Set-Up Operators							X							
Pattern and Model Makers				X	X					X		X		
Payroll and Timekeeping Clerks								X						
Peripheral EDP Equipment Operators												X	X	
Personnel Clerks, Except Payroll and Timekeeping			X					X						

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "ALL OTHER" CATEGORY

OCCUPATIONAL TITLE	STANDARD INDUSTRIAL CLASSIFICATION													
	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Personnel, Training, and Labor Relations Managers					X									
Personnel, Training, and Labor Relations Specialists				X				X						
Photoengraving and Lithographing Machine Operators and Tenders							X							
Photoengraving and Lighographing Photographers						X								
Photographic Processing Machine Operators and Tenders							X							
Physical Scientists												X		
Physicists and Astronomers													X	
Plastic Molding and Casting Machine Operators and Tenders		X											X	
Plastic Molding and Casting Machine Setters and Set-Up Operators		X						X	X	X	X			X
Plumbers and Pipefitters						X								
Power Distributors and Dispatchers											X	X		
Precision Foundry Mold and Core Makers			X		X			X		X				X
Precision Inspectors, Testers, and Graders													X	X
Precision Instrument Makers						X		X					X	
Precision Instrument Repairers									X					
Precision Layout Workers, Metal							X							
Precision Patternmakers, Model Makers, Layout Workers, and Cutters														X
Precision Photographic Process Workers														
Precision Woodworkers		X	X											
Pressers, Delicate Fabrics			X											
Pressers, Hand					X				X					
Press and Press Brake Machine Setters and Set-Up Operators, Metal and Plastic									X					
Printing Press Machine Operators and Tenders									X					
Printing Press Machine Setters and Set-Up Operators	X				X			X	X	X	X			
Procurement Clerks	X				X									X
Production Inspectors, Testers, Graders, Sorters, Samplers and Weighers									X					
Programmers, Numerical Tool and Process Control	X													
Pump Operators					X					X		X		
Punching Machine Setters and Set-Up Operators, Metal and Plastic	X													
Purchasing Agents and Buyers, Farm Products	X		X			X								
Purchasing Agents, Except Wholesale, Retail and Farm Products		X			X			X		X				
Receptionists and Information Clerks				X										
Riggers	X								X		X			
Roasting, Baking, and Drying Machine Operators and Tenders, Food														
Rolling Machine Setters and Set-Up Operators, Metal and Plastic														

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "AIL OTHER" CATEGORY

OCCUPATIONAL TITLE	STANDARD INDUSTRIAL CLASSIFICATION													
	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Safety Engineers, Except Mining								X						
Sales Engineers					X					X				
Sales Representatives, Except Scientific and Related Products or Services and Retail			X											
Sales Representatives, Scientific and Related Products and Services Except-Retail	X	X												
Salespersons, Retail										X				
Screen Printing Machine Setters and Set-Up Operators			X				X						X	
Separating, Filtering, Clarifying, Precipitating, and Still Machine Operators and Tenders	X					X								
Sewing Machine Operators, Garment									X					
Sewing Machine Operators, Non-Garment			X		X									
Shear and Slitter Machine Setters and Set-Up Operators, Metal and Plastic					X				X					
Sheet Metal Workers	X							X		X				X
Slaughterers and Butchers	X													
Soldering and Brazing Machine Operators and Tenders											X	X	X	
Soldering and Brazing Machine Setters and Set-Up Operators											X			
Specialty Materials Printing Machine Setters and Set-Up Operators		X				X	X		X					
Stationary Engineers	X					X								
Stenographers						X	X							
Stock Clerks, Stockroom, Warehouse or Storage Yard								X						
Switchboard Operators			X					X		X				
Systems Analysts, Electronic Data Processing	X	X		X	X						X	X		
Tank Car and Truck Loaders								X						
Technical Writers							X							
Textile Bleaching and Dyeing Machine Operators and Tenders			X											
Textile Machine Operators and Tenders-Winding, Twisting, Knitting, Weaving and Cutting					X									
Tool and Die Makers				X	X	X				X				
Tool Grinders, Filers, Sharpeners, and Other Precision Grinders				X						X				
Truck Drivers, Heavy or Tractor Trailer			X					X					X	X
Truck Drivers, Light-Include Delivery and Route Workers								X	X	X				
Typists	X		X	X		X				X				
Typists, Word Processor		X		X				X						X
Upholsterers					X									
Vehicle Washers and Equipment Cleaners	X													
Watch, Clock and Chronometer Assemblers, Adjusters and Calibrators-Precision														X
Water and Liquid Waste Treatment Plant and System Operators								X						

ESTIMATES COVERING THE FOLLOWING OCCUPATIONS WERE NOT SHOWN
SEPARATELY BECAUSE THEY DID NOT MEET THE CRITERIA FOR PUBLICATION. (SEE APPENDIX)
THEY WERE HOWEVER ADDED TO THE APPROPRIATE "ALL OTHER" OR RESIDUAL CATEGORY
AN X IS PLACED IN THE SQUARE CORRESPONDING TO THE SIC AND OCCUPATION ADDED TO THE "ALL OTHER" CATEGORY

	STANDARD INDUSTRIAL CLASSIFICATION													
OCCUPATIONAL TITLE	20	22	23	24	25	26	27	28	30	32	34	35	36	38
Weighers, Measurers, Checkers, and Samplers-Recordkeeping		X		X		X			X	X				
Welders and Cutters				X	X			X	X	X			X	
Welding Machine Operators and Tenders					X						X	X	X	
Welding Machine Setters and Set-Up Operators					X									
Writers and Editors													X	X

APPENDIX

The OES coding structure provides for the allocation of occupations reported into seven major categories. Specifically these occupational categories are as follows:

10000-19999 I. Managerial and Administrative Occupations

Includes top and middle level managers, administrators, and executives. Primary duties are policy making, planning, staffing, directing or controlling the activities of industrial, commerical, governmental or other establishments. Typical examples are: Corporate Officers; Plant Managers; Branch Managers; District Managers; Production Superintendents; General Superintendents; and Managers of such departments as budget, purchasing, sales and distribution, advertising, public relations, personnel and training, etc.

20000-39999 II. Professional, Paraprofessional and Technical Occupations

Includes persons concerned with the theoretical or practical aspects of such fields as science, art, education, law and business relations where substantial post-secondary educational preparation or equivalent on-the-job training or experience is required. Typical examples are: Architects; Engineers; Metallurgists; Physicists; Mathematicians; Statisticians; Biologists; Economists; Accountants and Auditors; Purchasing Agents; Public Relations Practitioners; Personnel and Training Specialists (other than departmental managers); Lawyers; Physicians and Surgeons; Registered Nurses; Editors and Writers; Teachers; Air Traffic Controllers; Computer Programmers; Drafters; and Chemical Technicians (except Health).

40000-49999 III. Sales and Related Occupations

Includes persons selling goods or services and others directly related to sales. Typical examples are: Sales Agents and Placers; Insurance; Sales Engineers; Cashiers; and Salespersons, Retail.

50000-59999 IV. Clerical and Administrative Support Occupations

Includes persons performing office and plant clerical tasks such as typing, filing, computer operating, records keeping (personnel, stock, production, billing, etc); and mail preparation and distributing.

60000-69999 V. Service Occupations

Includes workers in occupations relating to protective service, food service, health assisting service, cleaning and building service and personal service.

70000-79999 VI. Agricultural, Forestry, Fishing and Related Occupations

Includes workers concerned with agricultural production, forestry, and fishing. Also included in this division are agriculture related workers such as animal caretakers and groundskeepers.

80000-98999 VII. Production, Construction, Operating, Maintenance and Material Handling Occupations

Includes all skilled, semiskilled and unskilled workers performing machine and manual tasks involving production, construction, operating, maintenance, repair and material handling operations.

A. Sample and Survey Response

The second quarter of the 1985 report of employment and wages covered by the New Hampshire Unemployment Compensation Law was used as the sampling frame for this survey. The Manufacturing Establishments were stratified by three digit SIC's (Standard Industrial Classification) and by size class. Any unit with two hundred fifty or more employees was automatically included in the sample.

The actual reported survey period varied by industry and was either the week including April 12, May 12, or June 12, 1986 as designated by the U.S. Bureau of Labor Statistics. The survey was conducted by mail and consisted of an initial mailing and three followups. Phone calls were made when needed to insure the validity of the estimates.

B. Estimating Procedure

All usable employer questionnaires were separated into seven employment size groups by industry. For example, establishments with employment of 4 - 9 would be in one size class and those with employment of 10 - 19 would be in another size class, etc. One class size in one industry represents an estimating cell. All establishments in a given estimating cell were assigned a sample weight which is the inverse of the sampling ratio. For example, if the reported employment in a specific occupation for an establishment is 100, and only one out of two establishments in this estimating cell is included in the sample, the weight assigned to this establishment would be the inverse of 1/2 which is two, and for estimating purposes, the 100 employment would have a representation of 200 (2 X 100). The employment for any specific occupation in each establishment is blown-up (inflated) by its sample weight and summed for all sampled establishments in the cell. A ratio is then obtained by dividing this sum by the weighted total employment. This ratio is multiplied by the benchmark employment for that estimating cell corresponding to the survey month of April, May or June 1985 depending on the industry being estimated. This yields the occupational make-up of the estimating cell for the month. Finally, the employment in like occupations are summed across all employment size classes within the three-digit SIC (Standard Industrial Classification) level to arrive at a total industry employment for each occupation.

C. Variance

Variance is defined as the difference between an expected universe count of an occupation and the actual sample count obtained in a survey. It is computed for each occupation at the estimating cell level. An estimating cell is composed of all establishments in one size class in one industry. The variance for an occupational estimate is the squared and weighted sample observations times a series of correction factors. The sum of the squared and weighted sample observations is derived from summation formulas dealing with weights assigned to establishments, total employment reported by establishments, and employment reported by establishments for specific occupations. The series of correction factors are derived from summation formulas dealing withbenchmark employment less employment for volunteer reports, total employment reported by establishments, and the square of estimating cell benchmark factors (which are calculated by dividing the cell's benchmark employment by weighted total employment for the cell).

D. Sampling Error

Sampling error is defined as the difference between the estimated data derived from a sample and the data which would be expected if the entire universe of employers were surveyed. It is calculated by taking the square root of the variance of the estimates. In this publication, sampling error is measured on a 68 percent degree of confidence level or one standard deviation. For example, if an estimate of 100 has an associated sampling error of 10 the probability is 68 percent, or two chances out of three, that the true population value would be somewhere between 90 and 110.

E. Relative Error

Relative error expresses the sampling error as a percentage of the estimate. It is derived by dividing the sampling error (or square root of the variance) by the estimate and then multiplying by 100. For example, to illustrate the use of relative error, printing, publishing and allied industries (SIC 27) lists an estimated total of 36 financial managers with a relative error of 13 percent. This indicates, at the 68 percent confidence level, the probability is two chances out of three that the results of a universe count of financial managers would not differ from the estimate by more than 5 or an estimated high of 41 or low of 31. Any specific occupation with a relative error of 50 percent or less was published separately in this report except in industries 23 and 27 where a relatively poor survey response restricted the relative error to the 35 percent level. Relative error was computed only for specific occupations and not for residual categories or occupational groupings.

F. Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing and screening steps were taken, such errors could arise from faulty questionnaire design, ineffective processing techniques, inaccuracy of data furnished, or the inability to collect data as defined. Non-respondents are a source of nonsampling error for which corrective measures are not available. The possibility of these errors was recognized from the beginning and every effort was made for their elimination.

1. OES STATE OPERATIONS MANUAL U.S. DEPT OF LABOR BUREAU OF LABOR STATISTICS

JULY 1986 8-50

Publishing Criteria

The criteria used for publishing occupational estimates were as follows:

1) A response rate of at least 70 percent of the benchmark employment.

2) Industry employment of 1,000 or more.

3) A maximum relative error of 50 percent for firms with a least a 75 percent response for employment.

4) A maximum relative error of 35 percent for firms with a response rate less than 75 percent but greater than or equal to 70 percent.

5) Three or more employers reporting an occupation.

6) No one firm reporting 50 percent of the occupational estimate or two firms combined reporting 75 percent of the occupational estimate.

Estimates for an occupation which did not meet publication criteria were added to the appropriate residual category.

Manufacturing Survey Design

All Manufacturing industries (SIC's 20-39) were surveyed. A sample of approximately 1,165 firms were surveyed, representing (54 percent) of the manufacturing industries' employment.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF EMPLOYMENT SECURITY
32 SOUTH MAIN STREET
CONCORD, NEW HAMPSHIRE 03301

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300
FORWARDING AND ADDRESS CORRECTION REQUESTED

FIRST CLASS MAIL

U.S.MAIL

POSTAGE AND FEES PAID
EMPLOYMENT SECURITY MAIL
LAB-449

MRS. JEAN LONG
CONGRESSIONAL INFORMATION SERVICES
4520 EAST WEST HIGHWAY
BETHESDA, MD 20824